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SELECTIONS FROM THE RECORDS OF THE BOMBAY GOVERNMENT.
No. X.

REPORTS

ON THE

PURGUNNAS OF PURANTEEJ, HURSOL, MORASSA, BAYUR, AND VEERUMGAM,

OF THE

AHMEDABAD COLLECTORATE,

BY

LIEUTENANT (NOW LIEUT.-COL.) **P. M. MELVILL,**

EMPLOYED ON THE SURVEY OF THAT COLLECTORATE.

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REPORTS

ON THE

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PORTIONS OF THE DUSKROEE PURGUNNA

SITUATED IN THE

AHMEDABAD AND KAIRA COLLECTORATES,

BY

CAPTAIN J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Printed for the information of the Revenue Officers under the Government of Bombay.

Revenue Secretary's Office,
30*th June* 1853.

H. E. GOLDSMID,
Secretary to Government.

Bombay:

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1853.

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REPORT

ON THE

PURANTEEJ, HURSOL, MORASSA, AND BAYUR PURGUNNAS OF THE AHMEDABAD COLLECTORATE.

BY LIEUT. P. M. MELVILL,

ACTING IN SUPERINTENDENCE OF THE SURVEY OF THAT COLLECTORATE.

Situation, Extent and Boundaries.

THE Purgunnas of Puranteej, Hursol, Morassa, and Bayur occupy a tract of land stretching in extreme length from East to West 46 miles, and varying in breadth from 12 to 30 miles. This tract is intermediate between the well-cultivated and populous parts of the Province, and those of a wilder and more unsettled character which lie upon the North-east frontier, and it partakes in some degree of the nature and principal features of both. It is bounded on the East by the Saburmuttee River, which divides the Puranteej Purgunna from that of Beejapoor, a possession of His Highness the Gaekwar; on the South is the Dehegam Purgunna, also dependant upon Baroda, and on the East and North is the Principality of Eedhur, tributary to the same Government. The Mehewassee Villages of Bayur touch for a short distance upon those of Kuppurwung, in the Kaira Zilla: but for this the above Purgunnas would be entirely cut off from any other of the British possessions. In relative position, the Puranteej Purgunna is the most Westerly, and Morassa the most Easterly; Hursol lies between the two, and Bayur to the Southward of Morassa.

The Puranteej Purgunna is held exclusively by the Hon'ble Company, but the possession of the Hursol, Morassa, and Bayur, is shared with the family of the Eedhur Chief, commonly called the Marwarees.

2. The Puranteej Purgunna is held exclusively and entirely by the Hon'ble Company, but a moiety of the Hursol, Morassa, and Bayur is vested in the family of the Eedhur Chief, and held as a dependency of the Gaekwar, not of the British Government. This Chief is a Rathor Rajpoot: in his own person he enjoys only the moiety of Hursol; that of Morassa is held by his nephew, and that of Bayur by his brother's widow. All the members of the family are known by the common name of Marwaree, Marwar being their original country, and the seat of the Prince to whom, as head of the Rathor tribe, they profess allegiance. Whenever, therefore, the term Marwaree is used in the following observations, it must be understood as applying to the Raja of the particular Purgunna under mention at the time.

Account usually given of the origin of this division.

3. This unusual division of Purgunnas between two distinct Governments is related, by Bhats and other intelligent Natives of these parts, to have originated in the following manner:—During the reign of the Moosulmans, the Districts of Burnuggur, Beesulnugur, Kheraloo, Beejapoor, and Puranteej (the latter including the subordinate divisions of Hursol, Morassa, and Bayur) were given as a Jagheer to Peer Kumal, who appears to have first superseded the petty Rajpoot Chiefs among whom the country was originally divided. The son of Kumal, Kamil, was slain in an affray near Malpoor, on a hill which still bears his name; and shortly afterwards the Rawul of Malpoor seized Morassa, which he continued to hold as a tributary to the Rao of Eedhur. The Marwarees first appeared between the years of Sumwut 1780 and 90, (A. D. 1724 and 34,) when Ahmedabad, having been made over to the Jodhpoor Raja by the Moosulman Sovereign, Ujeetsing deputed his son Ubesingh to reduce and take possession of the Sirkar, or Government. Ubesingh was accompanied by his two younger brothers, Unundsingh and Raesingh, who, directed by what particular motive to this part is not known, made an easy conquest of Eedhurwara, the hereditary Rao of which had previously deserted his paternal city, and established his Court at Pola. By an arrangement between the brothers, Hursol, Morassa, and Bayur only were included among the dependencies of Eedhurwara, Puranteej and the Districts West of the Sabur being attached immediately to Ahmedabad, and the rule of Ubesingh: there is reason, however, to suppose that at one time Puranteej was temporarily in the hands of Unundsingh. On the expulsion of the Bundaree (the Jodhpoor Deputy) from Ahmedabad by the Babee, Kumal Deen Khan, a dependant named Zorawar Khan took possession of Puranteej, but the Eedhur territory remained untouched by any foreign power until the conquest of Goojerat by the Peshwa, in Sumwut 1809 (A. D. 1753). At this period the Mahratta troops overran the country as far as the town of Eedhur itself, and Seoosingh, the son of Unundsingh, who had lately succeeded to the throne, was obliged to purchase their absence by the cession of portions of the Hursol, Morassa, and Bayur Purgunnas, and it was with great difficulty he was able to retain Ahmednuggur. This ceded territory was incorporated by the Mahrattas, together with Puranteej, which as a Babee possession fell to them of course, into one Mal or Revenue Division, and placed under the charge of a Koomaveesdar. This arrangement has since continued undisturbed, and, as a part of the Peshwa dominions, the Mal in Sumwut 1874 (A. D. 1817-18) passed into the hands of the British Government.

This country is said to have been flourishing in the time of the Moosulmans, but it was subsequently overrun and destroyed, and is now again slowly recovering.

4. This country is now slowly recovering from its long-neglected and ruined state. In the time of the Moosulmans it is said to have been well peopled, and when the Kings of Goojerat were in the zenith of their power it is supposed to have been the seat of many flourishing towns and villages. As that power declined, and the reins of Government became loosened, each petty Chieftain felt himself at liberty to levy war upon his neighbour, and bands of freebooters combined with impunity in plundering the peaceable inhabitants. The bonds of society were soon broken up; villages became rapidly deserted, and the cultivation of the land entirely neglected. The wars which followed between the Babees and the Marwaree Rajpoots, and the invasion and subsequent rule of the Mahrattas, were little calculated to restore order; and for many years a wide and pathless jungle held undisturbed possession of the country. The Bheels established themselves as an organised body; and by obliging peaceable villages to purchase immunity from

their attacks by yearly contributions, their Chiefs derived a certain Revenue, amplified at their own discretion. For so bold and so decided was their character, that they never failed to visit with uncompromising severity any village that failed in its annual payment, and, on the other hand, so careless were they themselves of all engagements, that when they singled out a place for plunder, they merely preferred some exorbitant demand upon it, as a pretext for their violence, and a prelude to its prompt attack and complete destruction. Even within a few past years, the petty Chieftain of Amleeala established such a system of terror, that any demand of his upon a village within his range was met either by immediate compliance or immediate and entire desertion of the inhabitants. Scarcely twenty years have elapsed since the commencement of a better day, and though the country still bears a wild and unsettled character, it is surprising how much has been already effected. Village after village has been re-established in places to which it was necessary previously to cleave a road through the jungle, and a very extensive tract of land has been thoroughly cleared and cultivated. In the Puranteej Purgunna but few spots now remain untenanted, and in the other Purgunnas, though much more backward, improvement is making a gradual and slow, but very perceptible progress.

Remarkable features of the country.

5. The face of the country, as seen at the present day throughout these Purgunnas, is much diversified: about Puranteej it is very pleasing, the open and well-cultivated grounds swelling in gentle undulations, but always on a continuous rise from South to North. This prospect is exchanged at Hursol for thin jungle and a rocky soil, and at Poosuree, farther to the Eastward, for abrupt sandy rises. After crossing the Majum river, the jungle becomes exceedingly heavy; and the country throughout all the Morassa and Bayur Purgunnas continues to present a most wild and desolate aspect. Rock is generally to be met with at the distance of a few feet from the surface, and it often rises above it; but the hills can be said to commence only on the extreme North-eastern boundary of the District, a little beyond the town of Morassa. These hills come down in long low ranges from the petty territories of Mewar and Wagur, or Bagur. They are chiefly composed of bare rock, the soil being washed down by the rains to the lower grounds; and their very trifling height is to appearance increased by the abrupt and steep manner in which they rise from the plain. The ranges all tend to the South-west, which is the direction also taken by the rivers which have their rise among them; and by this the slope of the country is very distinctly indicated. To the South of Morassa there are extensive tracts of low ground, (termed "Muhal,") which are overgrown with low bushy jungle to such an extent as in parts to be absolutely impenetrable. Yet this land is said to have fallen into its present state only within the last century, as, prior to the great famine of Sumwut 1803 (A. D. 1747), large villages are known to have existed in the midst of this wilderness, and the names of some of them are still preserved. Stone Baorees are occasionally discovered in the jungle, filled up with earth, and only discernable by a few stones lying upon the surface. These may sometimes be considered as indicating the country to have been formerly well-populated, and in cultivation—but not always so, for many of them are ascribed to the Brinjarees, who erected them for their own use on the roads which they frequented, and who would hardly have been induced to do so had villages intervened as convenient halting-places in their marches.

6. Six principal rivers take their course through these Purgunnas, viz. the Saburmuttee, the Hautmuttee, the Majum, the Watruck, the Meswa,

and the Kharee; all of which, with the exception of the first and last, rise among the hills of Wagur. The banks of the Saburmuttee are exceedingly high and precipitous, (in parts 200 feet perpendicular,) and the neighbouring ground is broken into short, but very deep and abrupt ravines. Ground of this nature naturally presents positions of great strength, and such are here to be found on either side of the river. On the Puranteej, or left bank, the villages of Waghpoor, Oran, and Seetwara, are particularly defensible; and on the Beejapoor, or right bank, are several Kolie villages, which in former times bade defiance to all the power of their Government. The bed of the Saburmuttee is here little more than 100 yards broad, and composed entirely of sand; the stream, although joined above by that of the Hautmuttee, is very shallow, and covers in the dry season only about one-fourth of the breadth from bank to bank.

The Hautmuttee.

7. The banks of the Hautmuttee river below the Fort of Ahmednuggur are of nearly equal height with those of the Saburmuttee, but they are for the most part on a steep slope, and clothed to the base with thick and luxuriant jungle. The bed is narrow, not exceeding 50 yards in breadth, but gradually widening as it approaches the Saburmuttee: it is composed of rock and shingle, and at the side immediately beneath the bank are small pieces of soil, which are generally cultivated. On the boundary of the deserted village of Peeplodee the stream falls over a ledge of rocks to the depth of 15 feet, and when the river is swelled by heavy rain this fall must present a fine and romantic appearance. The ground about the bank is for a short distance broken into ravines, but these diminish, and almost cease higher up, as the soil becomes hard and rocky. The Hautmuttee river has but a short course of 60 miles, rising near Paul, in Waghur, and falling into the Saburmuttee, of which it is only a tributary branch. At the spot where the confluence takes place, the banks of the Hautmuttee suddenly diverge from each other, so as to form a wide basin, and when they join those of the Saburmuttee they are $1\frac{1}{4}$ mile apart. The former stream flows immediately under its North bank until it meets and unites itself with the latter, which comes in from the Northward, and, after taking an abrupt turn to the West, continues in a Southerly direction. The North bank of the one river, and the East of the other, meet at a sharp point, composed of a number of little broken hillocks, which are opposed to the full force of the stream of the Saburmuttee, and are evidently yielding to it. Should they give way, the river may assume an entirely new direction, and produce ultimate consequences difficult to be foreseen. The stream of water occupies but a very small part of the wide space between the banks; the remainder is a tract of fine land, formed by the soil washed down from the high grounds, and the deposit of mud when overflowed by freshes of the river. It is cultivated with crops of wheat and barley by the Kolee Thakoor of Waghpoor, whose property it is, and to whom it is a source of great profit.

Confluence of the Saburmuttee and the Hautmuttee.

The Bok is supposed to have been originally the bed of the Hautmuttee.

8. One of the most remarkable features of the country is the "Bok," a deep and broad hollow, commencing from the bank of the Hautmuttee soon after it first diverges, and running parallel with the Saburmuttee, and distant from 3 to 8 miles, in nearly a straight line, through the whole breadth of the Puranteej Purgunna, into the Dehegam. At the village of Moodasna the Kharee river falls into it, and continues to have its course through it, until the bank of the Bok can no longer be distinguished from that of the Kharee; but the former may be distinctly traced for ten miles after entering the Dehegam Purgunna. The Bok is supposed by the people, and apparently with truth, to have been the original channel of the

Hautmuttee, from which the stream was diverted into its present course by means of a bund or embankment thrown across. This act is ascribed to Sooltan Ahmed, the founder of Ahmedabad, whose intention was to increase the quantity of water in the Saburmuttee, upon the bank of which he had placed his new city. Though no trace of the Bund can at present be discovered, and after the lapse of nearly 500 years it were vain to expect it, still the tale appears probable; and indeed it is difficult, if not impossible, to account for this singular hollow in any other way. The town of Puranteej stands upon it, and it is not likely that such a position would have been chosen had not the Bok, at the remote period when that place was built, contained a flowing stream.

The Bund, supposed to have been formed to turn the course of the Hautmuttee, ascribed to Sooltan Ahmed.

9. The Meswa, Majum, and Watruck rivers bear the same character: the stream in all is alike trifling, and often during the dry season stagnates into detached pools; the bed is composed of rock and shingle; the banks are low, and the neighbouring country little intersected by ravines, in consequence of its general rocky nature. In the bed of the Majum river, below this, and near the confluence of the Watruck, are found the agates, which, when cut and polished, are sold at a high price, under the name of Kuppurwung Stones, the merchants of Kuppurwung being those who chiefly collect and forward them to the polishers at Cambay.

The Meswa, Majum, and Watruck Rivers.

10. The Kharee river rises at the distance of two miles only from the nearest point of the Puranteej Purgunna. Near the foot of the first range of hills there is a large tank, formed by a strong bund or dam, of rough stones, retaining the water which drains off from the high grounds. On the reverse, or South side of this, is to be found the Mutara, or source of the river, in a small hole, the water rising from beneath after the manner of an ordinary spring, but uniformly increasing or decreasing according to the quantity of water in the tank. Upon the bank there is an establishment of Gosaeens, called the Veejlop Mut, who cultivate a few fields around, and when the tank becomes dry are supplied with water from a stone baoree, built, according to an inscription upon it, in Sumwut 1791 (A. D. 1735). The stream of the Kharee takes immediately a defined channel, and flows for some distance over a rough, shallow, and rocky bed, overarched with trees, and large branching jungle. The channel gradually deepens, and the bed continues rocky, as far as Chadura, where the Kharvo, a stream larger than the main branch of the Kharee, and rising at the distance of 13 miles from this point, falls in. At Amodura, $9\frac{1}{2}$ miles from the source, there are springs, which cause the stream to flow throughout the year for the whole remaining extent of the Purgunna. It is an idea very prevalent among the people lower down, that the Kharee was formerly diverted near its source from the proper channel, and that the extraordinary flow of water since 1870 (A. D. 1824) was attributable to its being again allowed to take a natural direction. The idea proves to be quite erroneous; the stream has never been diverted from its proper course, but the heavy rains which successively occurred from Sumwut 1870—78 (A. D. 1814—22) occasioned a "Beja" or saturation of the earth, which caused the water to lie nearer to the surface, and as less could be absorbed, naturally increased the stream of every river. Under the influence of light monsoons, this beja is fast disappearing, and with it has disappeared the increased flow of water in the Kharee. No dependance, therefore, can be placed upon this stream lower down, and the project which was once entertained, of throwing bunds of masonry across, in the Dushkroee Purgunna, can scarcely, under such circumstances, be deemed advisable.

The Kharee River rises from a Tank near the Northern boundary of the Puranteej Purgunna.

The idea that it was formerly diverted from its proper Channel is erroneous.

The increase of the Stream from 1814 to 1822 is attributable solely to the heavy rains.

Bunds of Masonry across the Kharee in the Dushkroee Purgunna cannot therefore be deemed advisable.

The Kusba or Town of Puranteej.

11. The kusba of Puranteej is a small open town, containing 1,685 houses, and 5,310 inhabitants: it is closely and compactly built, many of its houses are good and substantial, and it appears to be in a progressive state of improvement. The resident Buneeas constitute a numerous and respectable body of men; among them there are several Shroffs, who carry on extensive dealings with the Ryuts, and more particularly the Kolee Thakoors, in loans of money at high rates of interest. Ghee, grain, and leather, form the principal articles of export trade: musroo and other stuffs are imported in return from Ahmedabad, and coloured cloths, turbans, sarhees, as well as wheat and raw sugar, from Malwa.

The Kusba or Town of Morassa is an important Frontier Post.

12. Morassa is also an open town, but more loosely and irregularly built than Puranteej, containing 1,251 houses, and 4,059 inhabitants. Its geographical position, situated as it is in the midst of a wild unsettled country, and calculated to overawe the turbulent inhabitants of the hilly tract on the verge of which it stands, renders it a most important frontier post. As it has long been the only place for some distance round capable of affording protection in times of danger, it has attracted a numerous and respectable body of merchants, whose capital is considerable, and from whom hoondees, or bills of exchange, can be procured upon all the principal places of Goojerat and of Malwa, and even upon Bombay and Poona. The current rates of exchange were, in March 1826, as below:—

Current Rates of Exchange at Morassa, in March 1826.

On Ahmedabad	1	per cent.	premium.
On Doongurpoor	13	„	discount.
On Purtabgurh	1	„	„
On Kaira	2	„	„
On Rutlam	5	„	„
On Baroda	1½	„	premium.
On Bombay	6½	„	„
On Surat	6	„	„
On Broach	6½	„	„
On Poona	10	„	„

The Trade of Morassa.

As a place of trade, Morassa may be considered an *entrepôt* or mart between Goojerat, Malwa, and Wagur, supplying, at the same time, the wants of all the surrounding country. The only articles of Native produce exported are ghee, oil, gums, and hides. The imports from Baroda and Ahmedabad consist of cotton, cocoanuts, cocoanut oil, sugar, tobacco, dried fruits from the Gulf, and spices; from Ahmedabad are received silk cloths and stuffs. Tobacco, spices, &c. are again exported to Wagur, whence in return cotton and the soorungee dye are received. From Purtabgurh are brought pugrees, sarhees, and other cloths, cotton, opium, and soorungee. The total capital possessed by the merchants of Morassa is supposed to be about nine lakhs of Rupees, but probably not more than two are actually employed in trade.

Comparative view of the Imports and Exports of Puranteej and Morassa.

13. The following comparative statement of the gross value of goods paying duty in a single year, as exports and imports of Puranteej and Morassa, shows the trade of the two towns to be nearly on a par, although the merchants of the latter are by far the most wealthy, and capable of carrying on more important commercial transactions than those of the former:—

PURANTEEJ.

	Rs.	*Qrs.*	*Reas.*
Gross value of Imports	50,920	0	0
„ „ „ Exports	19,800	0	0

MORASSA.

	Rs.	*Qrs.*	*Reas.*
Gross value of Imports	53,259	0	0
„ „ „ Exports	23,914	0	0

The trade of Morassa would certainly be much increased were that protection and security which depend at present upon the British name only made more effectual and permanent, by the presence of a detachment of regular troops. There are now only a few horsemen, 8 or 10, and 40 or 50 foot Peons, of little use in real danger, retained here; and it is a matter of astonishment how, with so insufficient a guard, the country remains so quiet and peaceable. How long this quiet may continue it is impossible to predict, but it is certainly at all times most liable to be suddenly disturbed.

Morassa is very insufficiently guarded; and a Detachment of Regular Troops is much required.

14. Hursol is a small place, strongly situated among ravines, on the bank of the Meswa river. It contains a considerable number of Buneeas, but they are very poor, and traffic only in a retail way. This is said to be a more ancient town than Puranteej, and to have been once of great size; no ruins, however, of any consequence can be traced about it, and at the present day it is quite insignificant in every point of view.

Kusba of Hursol.

15. The kusba of Bayur cannot be termed a town: it is a fine village, but though large for this part of the country, would only rank as of a middling order in the more Southern parts of the Province. The inhabitants are principally Koonbees, good and industrious cultivators.

Kusba of Bayur.

16. The villages subordinate to the above kusbas present in general a very poor and miserable appearance: the want of tiled roofs, and the combustible nature of the thatch and wattles, which are the materials of so large a part of the houses, render them peculiarly liable to fire, and accidents of this nature are continually recurring. But the loss on the other hand to the Ryut is but trifling, as his rude hut can soon be rebuilt. Few of the villages have any defined street, but they are commonly so contrived as that the lines of huts shall form a square, or several small squares, within which the cattle are secured at night. They are frequently destitute of any hedge, or other outward defence, and sometimes every hut is detached from the other, giving rather the appearance of a temporary encampment than a permanent village. The houses of the Kolee villages upon the Eastern frontier are not built upon one site in a body together, but in scattered groups of two or three, extending over a large space of ground. The risk of fire is thus much obviated, but the practice arises from the custom of allotting to each inhabitant of such villages a beega or more of land, termed a "Wara," which he enjoys as a private estate, subject only to a light fixed tax. Each individual erects huts for himself and his family on his own wara, and hence the straggling appearance which strikes a stranger as so remarkable. The village of Burodra, in the Morassa Purgunna, contains only 51 houses, and it extends over more than two square miles of ground.

The subordinate Villages are in general very poor and miserable.

The Kolee Villages are often built in scattered groups, each man erecting his Hut on his "Wara," or private Estate.

17. The roads from village to village, in the open parts of the Puranteej Purgunna, are very good at all seasons of the year, but those in the wilder parts to the Eastward are usually simple footpaths through the jungle. The high roads are tolerably good, but much intersected by nullas and small water-courses, and often crossing low spots, which, after heavy rain, it would be troublesome to pass. The two principal thoroughfares are between Ahmedabad and Eedhur *viâ* Puranteej, and between Ahmedabad and Doongurpoor *viâ* Morassa; but neither of them are much traversed.

Nature and direction of the High and Cross Roads.

The high and principal road from Baroda and Central Goojerat to Doongurpoor passes to the Eastward of Morassa, by Malpoor and Ballasinor; and that from Ahmedabad to Malwa by Satoombah and Lunawara, to the Southward of Morassa. A road, but not a good one, from Malwa to the North-western parts of Goojerat, passes also to the Northward of Morassa *viâ* Peit and Eedhur: it is supposed to be principally used for smuggling, in order to avoid as much as possible the passage of the Company's Districts. The road from Puranteej to Eedhur is very good in the dry season, but it crosses many nullas, is occasionally low, and leads through much heavy jungle; so that in the rains it might be rather difficult to travel. From Morassa to Doongurpoor the road passes chiefly over rocky hills and jungly valleys: it is probably as good at one season as at another, but always dangerous to unguarded travellers, from the number of predatory Bheels who herd among those wild fastnesses. There is a direct communication between Morassa and Eedhur, but it is a difficult and not altogether a safe road to attempt. The passage of the Saburmuttee and the Hautmuttee rivers is nowhere, upon the boundary of the Puranteej Purgunna, practicable for carts, on account of the steep and rugged nature of the banks, excepting at the junction of the two rivers, where the high road to Beejapoor crosses from the Pooras of Waghpoor to Singpoor, and may be traversed at all seasons. Wheeled carriages can pass with some difficulty a little below Ahmednuggur, and without any difficulty a little above it.

Many of the Jungle Plants are applied to use.

18. The variety of wild plants, shrubs, and trees, which compose the jungles, and are all known and named by the people, is very great; and it is surprising how many of them are applied to some useful purpose—the leaves, flowers, or fruit being used as articles of food, in medicine, in dyeing and fixing colours, or in tanning. The gums which exude from several trees are collected by the Bheels, and sold, either for a proportionate quantity of grain, or for a money price. The gum procured from the kher bush and the babool trees is eaten by the poorer classes: that of the latter bears a great resemblance to Gum Arabic, but the tree is very scarce in these parts.

Gums are exported from Morassa.

The gums of other trees are used by goldsmiths and dyers, and form an article of export from Morassa to Ahmedabad, Puranteej, Beesulnugur, and other neighbouring towns. From the branches of the peepul and bour trees is procured a species of wax, supposed to be formed by a small insect, which is much used by goldsmiths: it is employed to give a red stain to ivory, and applied to the teeth for the same purpose. The leaves of the peepul, bour, and khakhra are given as food to buffaloes, when other forage is not procurable for them, but cows will not in general eat them.

There are Forests of Teak and Blackwood Trees among the neighbouring Hills, preserved by the Bheels.

Within the limits of these Purgunnas there are no timber trees worth mentioning, but there are forests of teak and blackwood among the hills, at the distance of 10 or 12 koss, which are preserved by the Bheels, and must be purchased from them before they will allow them to be cut. The cultivators often make journeys into the hills for the purpose of cutting planks and rafters, which they carry for sale to the well-peopled parts: this occupation, however, must decline as agriculture advances, and particularly when the irrigation of fields gives the husbandman employment for the whole season.

Fruit Trees are scarce, except the Muhora.

Fruit trees are scarce, with the exception of the muhora, which is very common, and highly prized, and taken care of, on account of its berry, of which all classes are so fond, both when fresh gathered, and when dried and stored up; it is often boiled up with grain, and with the leaves of a creeper called doree, which is a very favourite article of food with the Bheels, but not found in the Eastern parts.

The Muhora Berry is a very favourite article of food: a Spirit is distilled from it,

From the dried berry is distilled the ardent

spirit known by the same name, and from the seed is extracted an oil, called "Dhoolia," which is used in the manufacture of soap, and exported for that purpose to Kupperwung. In some parts of the jungle, oosur, a coarse kind of soda, is found, and sold to the soap manufacturers, who resort here for the purpose of collecting and purchasing it.

and an Oil is procured from its Seed.

Oosur, or Soda, is found in the Jungles.

19. Tigers are numerous in these jungles, particularly about the banks of rivers; but although they commit great havoc among the stray cattle, it is seldom that human beings fall victims to their ferocity. Wolves, hyenas, and the minor beasts of prey are rarely seen. The "Neelgae," or white-footed antelope, and all kinds of deer, are very common: the former appear to be larger than in the Southern parts of the Province, being often not less than 14 hands high. Wild hog are scarce, but all the smaller kinds of game—hares, partridges, quail, &c.—are to be met with in great abundance.

Wild Aminals.

20. The superiority which this country, from its greater elevation, enjoys over the Southern parts of Goojerat, may be supposed to render its climate more healthy; but the jungles must be very inimical to European constitutions, and even in the open country to the Westward, the winds passing over them must cause their deleterious influence to be felt at certain seasons of the year. The Natives appear to suffer from no particular diseases, and enjoy as good health and as long lives as in other parts of the Province. The water throughout the whole country is remarkably sweet and good, and generally lies at a short depth from the surface of the ground.

Climate.

21. The population of this District is very scanty: it includes but a small number of Kurwa, and scarcely any Lewa Koonbees, which is much to be regretted, as the Koonbees are decidedly the best practical agriculturists in the Province. A third sect of Koonbees, called the Anjna, is met with, however, in considerable numbers; but these have nothing but the name in common with the other two sects, who in no way acknowledge them, or look upon them in the same light as they do each other. Instead of the sacred regard for all animal life, which is so remarkable in the Kurwa or Lewa Koonbees, the Anjna, like the Rajpoots, to whom they nearly assimilate, kill and eat several kinds of flesh; but they have a singular aversion to feathered fowls. They profess themselves as ready to fight as to cultivate, and probably would not be backward in defending their rights or property; but they do not appear to have been often enlisted as soldiers. They excel the Rajpoots as husbandmen, but are inferior both in skill and industry to the real Koonbee. In the Ahmednuggur District there are many Momuns, and a few have settled in the Puranteej Purgunna. These are converts to the faith of Mahomed, but still continue so far Hindoos as to require the marriage and other ceremonies to be performed both by a Brahmun and a Kazee. The dress of the women is that of ordinary Hindoos, but the men, in external appearance, are not to be distinguished from the Borahs; they are good and hard-working cultivators. The Moosulman inhabitants of the towns, generally termed Kusbatees, are in part converted Rajpoots, and in part pure Moosulmans of the Belooch and Patan tribes. There are at present few men among them of influence or character: they are generally poor, broken down, and enervated by the constant use of opium, and they seem wholly incapable of any useful exertion. Many of them in disturbed times entered the service of petty Princes and Chiefs; and they were once considered a powerful body of men. They hold much free land, and generally enjoy immunity from taxation; but the only advantage they derive

Population is very scanty.

The Anjna Koonbees.

Momuns.

The Kusbatees, or Moosulman inhabitants of the Towns.

from such indulgence is a life of more complete indolence than they could otherwise afford to pass. Some of them act as farmers of villages; but for this occupation they have neither capital nor capacity, and their establishments never thrive.

The Bheels are supposed to have a different origin from those of Khandesh or Malwa.

22. The Bheels of these parts appear to be different in their origin (though perfectly similar in character) from those of Khandesh or Malwa. They cannot here be considered as aborigines: the Chiefs and principal men are, without a single exception, all degraded Rajpoots, still retaining the designation of the Rajpoot tribe, to which their ancestors belonged; and many among the inferior order have also the like derivation. The title, too, of the Chiefs, Thakoor (Lord or Chieftain), is completely that of the Rajpoots—neither Turree, Naek, nor other term proper to the real Bheels, is known here; neither does the deference and obedience paid to them at all correspond with what is observed in other parts. The Thakoors live in their villages on a very equal footing, and are often possessed of even less authority, and treated with even less respect, than an ordinary Patel. It is known that, prior to the Moosulman conquest, Rajpoots formed the entire bulk of the population; and it is supposed that these Bheels were first mere robbers and outlaws, chiefly Rajpoots, who increased in number as the prosperity enjoyed under the Moosulman dynasty declined, and gradually incorporated themselves into a distinct caste. The tale that is commonly told of the degradation from Rajpoot to Bheel being caused by the accidentally drinking water presented by one of the latter class seems too universal to be true. If the real Bheels were the aboriginal tenants of the country, most probably they were driven by the Rajpoots at an early period into the hills of Wagur, where they may have since remained. The Bheels of Wagur are at this day a distinct race from those of Goojerat; there is no connection between them, and they will not intermarry with each other.

The Bheels are divided into numerous Tribes.

23. The Bheels are not fond of the name usually given to them, preferring that of Bhaebund, or brotherhood: they are divided into numerous grades and divisions, but not in so marked and perfect a manner as the Rajpoots—the Puggee and Kotwal, though evidently only offices, are considered as distinct tribes. For the most part promiscuous marriages take place throughout the whole caste, but the Chiefs are sometimes restricted to certain families, or to such only as, like themselves, bear some Rajpoot designation. The Kants of Gabut claim to be considered as the head among the Bheels, but in general the Bareeas of Satoombah (Ballasinor Purgunna) have the preference. The former were once very powerful, but are now perfectly quiet; they are at deadly feud with the Chief of Amleeala, whose father, the notorious Bhatajee, slew their father, but they never attempt to avenge themselves by violence, although neither party will enter the village of the other, nor will they hold any intercourse together.

Character of the Bheels.

24. The Bheels are a poor, ill-favoured race, immoderately addicted to drinking, a propensity which the cheapness of the mowra liquor enables them to indulge; they will also eat opium to excess whenever possessed of the means of buying it. They are of course expert thieves, but, unless provoked by opposition, seldom add murder to robbery. This is a point of difference between them and the Bheels of Wagur, who have the character of being rather bloodthirsty. They eat all manner of flesh, excepting the cow and the neelgae, and in this they again differ from their neighbours of Wagur, who eat the flesh of the cow without scruple. Buffaloes, however, are slaughtered with no ceremony, and are often stolen for the purpose of being

eaten. The Bheels are passionately fond of the muhora berry, and when in season live almost entirely upon it; they dry it and store it up, dressing it in messes mixed with a portion of coarse grain. It is said to be very invigorating diet, and the trees are preserved with great care. The dexterity evinced by every Bheel in tracing "Puglas," or footsteps, is very astonishing: they seem to have an instinctive habit of watching the ground upon which they tread; and a man will stop while at a rapid pace, and show the footprint of a tiger or other wild animal, where the impression is scarcely perceptible without attention even when pointed out. In this art they greatly excel the Puggees of the more settled Districts, whose skill, however, it is boasted, generally fails after the first or second mile.

Practice of the Bheels termed Kalee Cheetree.

25. There is a practice, known by the term "Kalee Cheetree," very prevalent here, which marks the systematic method in which the Bheels carry on the art of theft when they regard it as their proper pursuit. Stolen cattle are conveyed to some large village, where protection can be afforded, and thither the loser, tracing the puglas or footprints, or guided only by suspicion, generally follows. He is shown his property, and given to understand that for a certain sum he may receive it back. The conditions are commonly agreed to; for if the sufferer departs on other terms, the thief concludes that he has gone to procure the aid of Police, and takes off the cattle to the hills, where he defies all pursuit. The people know this well, and consequently always compound; and they never inform afterwards, for they argue, somewhat justly, that if they did, they would be obliged to travel into Ahmedabad, perhaps at great inconvenience, and though the thief might be punished, they would be liable, in spite of all the power of the Government, to suffer from the vengeance of the whole clan. It is for these reasons that few complaints are lodged with the proper authorities, although such robberies are of almost daily occurrence. The thieves do not always belong to the villages where they carry their plunder for protection—they are frequently inhabitants of the new and poor villages, where they are wholly without employment from the early harvest of one season to the spring of the next, and tempted to follow the pursuit of thieving as more congenial to their habits than earning a subsistence as day-labourers. The practice of kalee cheetree doubtless increases the number of thefts; for to sell the stolen animal a considerable journey must be made, accompanied with great risk of detection; whereas by this means a few rupees are obtained with very little risk, and without moving far from home. Articles of clothing, grain, &c. may of course be disposed of in any village, but cattle are so liable to be discovered and owned, that nobody in the neighbourhood of the place where they are stolen will venture to purchase them. The practice, therefore, requires to be, if possible, stopped; and perhaps the placing a thana of Police in each village where it is known to be carried on might have the desired effect. Antrolee, in the Hursol Purgunna, and Bakrol in Eedhurwara, are the most notorious places. Sometimes, after an animal has been stolen, a loiterer about the house accosts the owner, and offers for a certain sum to bring it back. While the survey was in progress at Hursol, the Mookhee Patel lost a valuable bullock. After the lapse of a few days, and after failing in tracing the footprints, he was accosted in this manner, and he ultimately agreed to pay 25 rupees for the restoration of his property; the animal was accordingly brought back, and the money duly paid. The Bheels have also a trick of pounding stray cattle, and demanding a consideration from the owners before delivering them up.

The Bheels are gradually acquiring better habits.

26. But although these petty robberies are a serious evil, it is pleasing to contemplate the change that is taking place in the habits of the Bheels. Those in particular who reside upon and about the banks of the Kharee river, subsisted, not twenty years ago, entirely upon plunder, and the surrounding country was thereby rendered extremely dangerous to travellers. As the country improved, and the jungles became cleared, their excesses were somewhat restrained, but still no ordinary person could venture among them, unless well attended. At the present day open violence is quite unknown, and the Bheels have seriously betaken themselves to agriculture: the Officers of the Survey rode into, through, and about their villages at all hours unarmed, and unattended, and were everywhere received with the greatest respect, and never on any one occasion experienced anything like insult. The British name, particularly after the destruction of the notorious village of Lohar, overawed them in the first instance; but it is to be hoped that they are fast acquiring permanent habits of industry and good order.

27. The soil throughout the villages of the Puranteej Purgunna is almost entirely of the Goraroo description, in some parts approaching to the Besur, or mixed class, but always of a loose and sandy nature. It is not intrinsically productive, but by irrigation and manure it may be made so: water is always to be procured upon it of good quality, and it often bears luxuriant trees of every description. Through the wild country in which the other three purgunnas are situated, the changes of soil are many and sudden: rock is generally to be found at a foot or two from the surface; and the superincumbent soil is for the most part to be classed as Besur, or as simple Goraroo, seldom, except in hollows, becoming so black as to bear the term Kalee. The quality of land may be judged by the nature of the jungle growing upon it: if this be thick and luxuriant, with much brushwood, the natural powers of the soil may be supposed to be very great; but if the jungle be thin, and destitute of brushwood, a contrary inference may be drawn.

Husbandry is confined to the ordinary routine of Crop.

28. The system of husbandry pursued here differs in no respect from that which has been minutely described in the Reports on the Dushkroee and Dholka Purgunnas. The poverty of the people confines them to the ordinary routine of crops, and prevents their attempting any of the superior kinds of produce: dung of cattle is the only manure used, and this is so carelessly collected, and unthriftily preserved, that the supply seldom extends beyond the fields in the neighbourhood of the village, the more distant being left to their natural powers, and producing accordingly but small returns. The want of carts, also, for the conveyance of manure out to the fields, is often severely felt: it is seldom sold, and its price is very low, being only 2 annas per cart. This scantiness of manure and the paucity of population have induced the practice of leaving fields alternately waste, and returning to them again after the lapse of three or four years, the land after so long a fallow being found to produce well for a single season without the assistance of manure. In the jungles, the Kolees are in the habit of clearing small spaces, and burning upon the ground a collection of dry bushes and brushwood, the ashes of which ensure an abundant crop for the first and second seasons, after which the spot is abandoned, and a fresh one chosen. These spots are termed "Walras," and seldom exceed in size one or two beegas. Wood ashes, in jungly countries, where wood and sticks for the purpose are so plentiful, would form a valuable manure for the regularly cultivated lands. Of this the cultivators are perfectly aware, but Koonbees and most Hindoos have a prejudice against using it, on account of the "Pap," or loss

Manure is scantily supplied.

Fields are left alternately Waste, to recover themselves.

The Kolees clear by fire small spaces in the Jungle, called Walras, which produce well.

Wood Ashes would be a good Manure, but there is a prejudice against it.

of life; the sacred regard for animal being extended to vegetable life, whenever the latter is not absolutely required as food for the use of mankind. No persuasion would be sufficient to overcome this singular idea, although the inconsistency of firing wood without scruple for the purpose of cooking victuals or warming their bodies is palpable and manifest to themselves.

The Kharee River is applied in a limited degree to the Irrigation of Land.

29. Of the six rivers which intersect these Purgunnas, the Kharee alone is applied in any degree worth mentioning to the irrigation of land, and the use even of this is very limited. The ground upon its bank is generally low, and the crop in consequence liable to be destroyed by frosts, which frequently occur during the cold season; the bank, also, is often so sandy that dekoores can with difficulty stand. The tanks in the goraroo soil can never be of much consequence, as the ground is not calculated for them; but in the Eastern parts, where they are many and numerous, they are sometimes advantageously applied.

Nature of the Wells in this part of the Country.

30. Irrigation can only be carried on to any extent by means of wells; for rivers and tanks are themselves dependent upon the fall of rain, and consequently liable to fail at the very moment when they are most needed. The wells of this country are all formed for two or more koss, and, as the water seldom lies deep, are worked for the most part by a single man, after the manner of the Soondeea wells described in the Dushkroee Report. Their construction varies with the nature of the soil: in the sandy parts much difficulty often attends them, the loose earth falling in from above, and the sand mixing with the water beneath to such a degree, that a great depth must be obtained before this obstacle can be overcome. In the rocky soils the rock is pierced and hollowed out with the simple chisel of the country, and the operation is so tedious that ten years sometimes elapse between the commencement and completion of the work. Sometimes blazing logs are employed to split the rock, and blasting, though known to the people in theory, seems never to be practised. Wells are sometimes constructed of rough hewn stones, without cement; but this difficulty attends them, that, from the impossibility of sinking the superstructure, as in brick wells, they cannot go deep, and seldom have a sufficient supply of water in them. Such wells are less expensive than the ordinary brick, or those pierced through rock, because they are formed chiefly by the personal labour of the Ryuts, and do not call for professed workmen of any class. The cost of a brick well on sandy soil may be from 2 to 300 Rupees, and of one of rock from 3 to 500 Rupees. Frequently, when the water lies near the surface, the kucha or unbuilt wells are used, being simple excavations, which last but one season, and speedily fall in after the commencement of the monsoon.

The Cattle are poor and diminutive.

31. The cattle in this part of the country are of a poor and diminutive breed, very unlike the large and fine animals to be seen in the Kurree and Putun Districts, on the opposite side of the Saburmuttee. The Bherwars or breeders have, indeed, no inducement to rear animals of a superior kind, as the enhanced price would prevent them from finding purchasers among so poor a people. It is customary with the Ryuts to purchase their bullocks, when young calves, for 4 or 5 Rupees, and bring them up in their own houses. The operation of cutting is performed soon after birth, by Wagrees, with a common knife, so skilfully, that instances of death resulting from it are scarcely known. The "Reha," or calf, becomes, when 4½ or 5 years old, a "Pulota," and is then trained to the yoke; in another year he is called a "Byl," or full working ox; and unless cut off by disease he will continue to perform his work effectively for six and eight, and even ten years. Oxen while working require to be fed occasionally with grain, and in the cold mornings

a little ghee should also be given them as a cordial; the dried fruit of the muhora is a good substitute for grain, and the kucheleea, or oil nut, slightly bruised, is found to be very nourishing. In poor villages, where the people possess no bullocks of their own, they hire them from the cultivators of other places, or from Bherwars, and even Buneeas, on a condition to repay the owner a certain quantity of grain at the time of harvest, varying from 4 to 12 maunds, according to the value of the animal hired. This hiring is termed "Kandora," and is a very general practice.

Custom of hiring Plough Bullocks, termed Kandora.

Milch Cattle.

32. The cows are of the same diminutive species as the bullocks, but the buffaloes are much like those of other parts. In a Koonbee's family it is a matter of great disappointment when the buffalo brings forth a "Para," or male calf, instead of a "Paree," or female. In the former instance it is considered necessary to destroy the animal as useless; but a Koonbee cannot take away life, and he therefore contributes no further to its death than depriving it of its mother's milk, which soon puts a period to its existence. Herds of milch kine are kept in every village, the milk obtained from which is made into ghee, and sold—the "Chas," or butter-milk, forming a principal article of the cultivator's diet. These herds are often excessively and unnecessarily large, and one-half of them quite useless: for the sake of them the people sometimes show a disposition to keep tracts waste as grazing ground, which might with far greater profit be brought under the plough. The "Siette," or small-pox, makes frequent and fatal ravages amongst the cattle, and numbers also perish from the want of being properly housed and fed during the cold weather. A very cold and wet day, which occurred in February 1825, is known to have swept off 100 head in one single village.

Milch Kine belonging to inhabitants of the Towns are entrusted to the keeping of Cultivators on certain conditions.

Milch kine are also kept by the inhabitants of the towns, who frequently send them out to different villages, entrusted to the care of Patels and principal cultivators: the person undertaking the charge must turn the milk regularly into ghee, and account for it to the owner, but the butter-milk is his own;—he also sometimes, but not often, receives a small monthly or annual payment. Calves are reared by villagers on account of Buneeas and others, their owners, on the following singular conditions: the calf, when first given over, is valued, and when delivered back full grown is again valued; and one half the difference between the first and second valuation is the price to be paid the villager for his services. In the Morassa Purgunna female calves are reared on easier conditions: the villager keeps the calf till it has grown up, and itself calved for the first time; after which event it remains with the rearer for ten days, he enjoying the milk, when it is taken home, together with its offspring, to the owner, and the trifling remuneration of 1, 2, or at the most 3 Rupees, is all that is either expected or given. This latter custom is termed "Sachwuna."

Peculiar Custom, termed Sachwuna.

Productions.

33. Little else is grown in these Purgunnas to any extent than bajeree and joowar, with the usual pulse crops, and the inferior kinds of dry grain. In the following table an endeavour is made to estimate the gross produce that may be on an average expected from an acre of ground sown with each several description of crop, and also the expenses attending its cultivation. The last column shows the sum which is estimated to remain to the cultivator after defraying the expenses of cultivation, and allowing for the value of the share of the produce which he must give up as the Government due. But this is not the net profit of the Ryut, for from it must be deducted a proportion of the "Veeras," or tax which is assessed upon his plough; and as this depends upon so many local contingencies that it cannot be estimated with any degree of precision, no attempt is made to show it. There is great

difficulty in forming such estimates as these, as the people are unaccustomed to the use of the beega, or any other measure of land, and therefore they must be taken with great allowance :—

Table showing the Estimated Gross Produce per Acre, and the Expenses of Cultivation attending each kind of Crop, together with the Estimated Value of the Government Share of the Produce.

	Estimated Gross Produce per Acre.				Estimated Expenses of Cultivation.			Estimated Value of the Share taken in Kind.			Remaining to the Ryut, from which is to be defrayed the Plough Veeras.		
	Quantity of Grain.	Value with the Straw.											
	Seers or lbs.	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*
Bajeree, with Kuthol	680	14	1	0	6	0	0	3	1	62½	4	3	37½
Joowar „ „	700	13	1	37½	6	2	25	3	1	0	3	2	12½
„ on Fallow Land	1,020	17	0	25	16	2	62½	1	3	50		....	
Rice	1,360	25	2	0	15	1	0	8	0	62½	2	0	37½
Sathee, or Coarse Rice	1,020	15	0	25	6	3	75	3	2	37½	4	2	12½
Wheat, on Fallow Land	1,700	35	3	0	25	0	25	5	3	0	4	3	75
„ as an After Crop	1,360	28	3	75	21	1	0	3	3	50	3	3	25
Barley, on Fallow Land	2,040	27	1	0	24	0	75	4	1	0		....	
„ as an After Crop	1,700	23	0	0	20	1	50	2	2	62½		....	
Kodra	680	8	3	75	4	2	0	2	0	50	2	1	25
Mug, Mut, or Urud	476	7	1	0	3	2	37½	1	3	0	1	3	62½
Guwar	544	9	2	37½	3	2	37½	2	1	0	3	3	0
Cheena, or Gram	680	13	2	0	6	2	37½	3	1	50	3	2	12½
Baota	952	13	2	50	7	0	62½	3	1	50	3	0	37½
Mukaee (Indian Corn)	1,020	17	0	0	6	1	50	5	2	12¼	5	0	37½
„ as Fallow Crop	1,020	16	0	0	16	2	62½	2	0	0		....	
Deewela (Castor Oil Plant)	408	12	3	0	6	1	0	3	0	75	3	1	25
Tul (Common Oil Plant)	228	9	0	0	5	1	25	2	1	0	1	1	75
Toower	544	11	0	0	5	1	25	2	3	0	2	3	75
Buntee	816	10	0	75	4	3	18¾	2	2	18¾	2	3	37½
Kang, on Fallow Land	1,428	20	3	25	16	2	62½	3	1	50	0	3	12½
„ as an After Crop	1,088	15	3	75	13	0	75	1	3	75	0	3	25
Cheena, on Fallow Land	1,564	22	3	25	16	2	62½	3	3	0	2	1	62½
„ as an After Crop	1,224	17	3	75	13	0	75	2	0	75	2	2	25
Tobacco	1,360	42	2	0	26	1	50	6	3	0	9	1	50
Sugar-cane	2,720	272	0	0	180	1	0	7	2	50	84	0	50
Methee	680	25	2	0	18	3	25	3	0	75	3	2	0

Notes relative to the different kinds of Crop.

The most material obstacle which the cultivator in this part of the country has to encounter is the coarse and reedy grass, known by the name of "Dhab" and "Surkut," which springs up in so rapid and pertinacious a manner as to render it difficult to keep the fields sufficiently clear. It is most felt in seasons of heavy rain, and during the period which is marked among the Natives as the time of the "Beja," or saturation of the earth (from A. D. 1814 to 1822), was excessively injurious to the crops. It has now in some degree diminished, but is still a serious evil. In the very sandy lands, an excess of rain at the time the crop first breaks ground destroys the bajeree and joowar, but the kuthol sown with it will still come forward, and loss from this cause is usually very partial. A species of vegetable called "Kalunguree," nearly resembling a melon, is sown with bajeree or joowar, and ripens at the same time with them. When young, it is sometimes eaten by the people, and when full grown is given as food to the cows and buffaloes, but not to the bullocks, being considered of a cold and injurious nature. The seeds are taken out and eaten, selling for about 2 or 2½ maunds per Rupee. The price in the fields of the full grown kalunguree is always

1 Rupee for a cart load. No better kind of rice than the sootursal, the most inferior description of dangur, is grown here: it is all transplanted, and generally irrigated from water-courses and small tanks, but seldom from wells. Wheat crops are very subject to a blight called "Geerwa," and also to injury from "Heem," or frosts. Barley crops are much less liable to be injured by accidents, and consequently the greater rate of profit derived from wheat is compensated by its greater precariousness. It is a common practice to sow wheat and barley intermixed with each other, in order that, should the former fail, some return may be derived from the latter. The wheat grown here is not nearly so good in quality as the khata, and the chaseea wheat of the Dholka Purgunna. Chaseea wheat was grown without irrigation in some particular spots during the seasons of extraordinary heavy rain; but it can never be produced in ordinary seasons. Kodra by itself is an exhausting crop, and therefore grown only on land newly cleared of jungle, and broken up, because it would spoil for a time those under permanent tillage. When kodra is sown in conjunction with toour, the leaves and vegetable matter falling from the latter act so well as manure that the ill effect of the former is completely obviated. The mukaee, or Indian corn, is grown on both goraroo and kalee land, but in the latter only as an irrigated rubbee crop. It requires a good soil, but is not manured; 6 seers of seed are sufficient for a beega, and the plant breaks ground after an interval of about twenty days, when it is cleared of weeds by the rampree drawn over it. The heads of grain are plucked separately from the stalks, which are afterwards cut, but not valued as fodder for cattle. Selree, or sugar-cane, is grown in a few fields at Bayur and at Gabut, but the quantity is so small as scarcely to be worth noticing: it proves, however, that the soil is equal to its production, and therefore its culture might be extended; a beega requires 18 carts of manure, and 15,000 pieces or eyes of cane to sow it; the produce is estimated at 40 maunds of gol or raw sugar, worth 160 Rupees, and the expenses at 110 Rupees. Kupas, or cotton, is not grown here, although the soil is often suited to it. The species known in this part differs from the Broach, being a triennial, producing the second and third seasons, but not the first. The objection to it is that, it being impossible to watch the fields continually, the plants are eaten and destroyed by the ros or neelgae, and other animals.

There is no doubt that the better description of produce might be advantageously introduced, did the circumstances of the people admit. Tobacco in particular would thrive extensively, but there is a prejudice against this crop, and an example requires to be set before any single man will venture to sow it.

Estimate of the number of Beegas which are calculated as equal to 1 maund of Seed of the different descriptions of Produce respectively, and of the Returns to be expected.

34. As the people are so much in the habit of calculating by the maund of seed, the following table may not be useless: it shows the greatest, least, and average return to be derived from one maund equal to forty seers or pounds of seeds, and estimates the number of beegas it will sow of each distinct crop;—

	To 1 Maund of Seed.			Average Produce.
	Estimated number of Beegas.	Greatest Produce.	Least Produce.	
	Beegas.	Maunds.	Maunds.	Maunds.
Bajeree	8	96	32	56
Joowar	5	60	25	45
Kodra	8	104	40	80
Mut, or Mug, &c	8	80	24	56
Gowar	8	80	32	64
Rice	2	56	30	40
Sathee	1	18	8	15
Gram	2½	40	21	26
Baota	10	210	100	140
Deewula	6¾	47	27	40½
Mukaee (early)	6¾	135	54	101
Ditto (late)	2	40	24	30
Tul	80	400	160	280
Toowur	2½	31½	13	20½
Buntee	13	265	79½	159
Wheat	0½	17½	7½	12½
Barley	0½	20	8	15
Kang	4	100	64	80
Cheena	4	108	64	88
Joowar (late)	2	40	24	30

The above table shows also the number of fold the seed of each crop multiplies itself: this is a fair method of estimating the fertility of different parts of the same country; but in comparing different countries it may be erroneous, because superior skill may effect a saving in the quantity of seed employed, and yet produce larger crops on land of only equal fertility.

Total number of Villages as held at present by the Hon'ble Company and the Marwaree.

35. The total number of villages in the Puranteej, Hursol, Morassa, and Bayur Purgunnas, as now held by the Hon'ble Company, and by the Marwaree, is as below:—

	Held by the Hon'ble Company.	Held by the Marwaree.	Divided.	Total.
	Villages.	Villages.	Villages.	Villages.
Puranteej Purgunna ..	99	0	0	99
Hursol „ ..	14	6	4	24
Morassa „ ..	36	45	3	84
Bayur „ ..	16	18	2	36
Total..	165	69	9	243

Original division of the Morassa and Bayur Purgunnas.

According to a document produced by the Native Revenue Officers, and supposed to be perfectly authentic, the number of villages in the Morassa and Bayur Purgunnas was in the first instance divided in the following proportion:—

	Assigned to the Peshwa.	To the Marwaree.	Divided.	Total.
	Villages.	Villages.	Villages.	Villages.
Morassa Purgunna ..	49	44	1	94
Bayur „ ..	18	20	2	40

Explanation of the changes that have taken place since the division in A.D. 1753.

The difference, therefore, between the total number of villages in the Morassa Purgunna in Sumwut 1809 (A. D. 1753) and Sumwut 1882 (A. D. 1826) is ten; of these, two (Nathawar and Tachkeea) have been usurped by the Rawul of Malpoor, and two (Kutwareea and Rampoor) by the Thakoor of Wuragam, one (Sagpoor) is now attached as a Company's mewas village to the Hursol Purgunna, but brought separately to account, and one (Mut) has merged in the lands of Barnolee, a Peshwa village; the remaining four (Bulol, Kalunduree, Sesodur, and Libodura) cannot be found, but are supposed to be included in the Megruj Purgunna, a possession of the Marwaree of Ahmednuggur. The loss of all these falls upon the Peshwa side; and in addition three villages (Senawara, Moolud, and Dholwanee,) have been usurped by the Marwaree, but in return two of the Marwaree villages (Alumpoor and Suroorpoor) have been transferred to the Peshwa side. There still remain two villages to make up the difference in the Peshwa share, and these are Wuneaed and Gabut, which are placed among the divided villages, as the Marwaree has for a long period period enjoyed the collections from the land, while the Company are considered as entitled only to the veeras, or money taxes. In the Bayur Purgunna the difference in the total number of villages appears to be four, but of the number now existing one (Wasunee) has been established since the original division, and one (Wantra) originally pertained to the Mandwa Talook, so that the loss to be accounted for is actually six. Of these the Marwaree has lost four, viz. Purantooel, held by the Gabut Kants as tributary to Loonawara; Simlod, held by the Medasum Chief; Sukwaneea, held by the Malpoor Rawul, and Wurdhura, now in the Kuppurwung Purgunna. The Peshwa side has lost two, viz. Akodra, now held by the Amleeala Chief, and Sagpoor, the lands of which have merged in those of the Kusba. Two other villages (Dhurmuree and Neetroreea) of the Peshwa side are now enjoyed by the Gabut Kant's tributary to the Marwaree of Bayur, and they have therefore been included with the Marwaree villages. By the document mentioned above it appears that the Waragam Tuppa, comprising ten villages, was equally divided between the Peshwa and the Marwaree, and also that the Malpoor territory was assigned entirely to the Peshwa. The Malpoor Rawul now pays a trifling tribute to the Company, but the Wuragam Thakoor considers himself as tributary only to the Eedhur Chief. The town of Megruj, or Megruj Thana, is likewise set down as pertaining to the Morassa Purgunna, and equally divided between the two Governments, but this place has for a long period been held by the Ahmednuggur Raja, who has made it the head of a small Purgunna.

Changes in the Hursol Purgunna.

36. Of the original division of the villages in the Hursol Purgunna equally authentic information is not procurable. It appears, however, that in the present list of the Hon'ble Company's mehwasee villages, there are three, (viz. Nana Chekla, Uneeor, and Rojhur,) which belong of right to the Marwaree's portion, and one (Pudoosun) to the Wuragam Tuppa. Two other of the Marwaree villages (Nuwanugur and Roopal) have also been lost to him, and they are now included in the Puranteej Purgunna; on the other hand one of the Peshwa villages (Meerapoor) has been drawn into the Dehegam Purgunna, a possession of His Highness the Gaekwar, and another (Waoree) has merged in the lands of Burodra, a Company's mehwasee village. Chandpoor and Jeupoor, now of the Puranteej Purgunna, belonged originally to the Peshwa's share of Hursol; and Gola, one of the Marwaree villages, pays an annual tribute to the Company.

37. The number of villages, then, which in these four purgunnas pay Revenue exclusively to the Hon'ble Company, amounts at the present day to 165, and nine, including the three kusbas of Hursol, Morassa, and Bayur, pay a divided Revenue to the Company and the Marwaree. All the interior economy and management, however, of the latter, rests with the Officers of the Company, and therefore the number of the Company's villages may be considered as 174. These are divided into Khalsa, or Government villages; Talooka, or held on hereditary leases; Enam, or wholly alienated to private individuals; and Mehwasee, or held by Kolee Chieftains on a peculiar tenure, subject to the payment of an annual rent or tribute. The number of the Company's villages under each division in each Purgunna is as follows :—

Total number of the Hon'ble Company's Villages at the present day.

Number of the Hon'ble Company's Khalsa, Talooka, Enam, and Mehwasee Villages severally.

	Khalsa Villages.	Talooka Villages.	Enam Villages.	Mehwasee Villages.	Total Villages.
Puranteej Purgunna ..	66	5	1	27	99
Hursol „ ..	10	..	..	8	18
Morassa „ ..	35	..	3	1	39
Bayur „ ..	15	..	..	3	18
Total ..	126	5	4	39	174

38. The five talooka villages of the Puranteej Purgunna are all held by one proprietor, Kurmee Khan Ushkur Ulee Khan, a Syud, who is supposed to be a direct descendant of the Peer Kumal, who once held the wole of this country as a Jagheer. They are fine and highly cultivated villages, comprising an area of $10\frac{1}{2}$ square miles, equal to 11,750 beegas, or 6,908 acres, and they yield an average annual Revenue of 4,500 Rupees; four of them lie together to the Southwest of the Khalsa, and the fifth is situated a little more to the Eastward, upon the frontier of the Dehegam Purgunna. Oran, the principal of them, stands upon the bank of the Saburmuttee, and is a place of great strength : a very deep abrupt chasm defends it on the South ; on the West is the perpendicular bank of the river, and another ravine runs along the North and East, leaving only a narrow entrance, which is defended by a gateway. The total number of houses in these five Talooka villages is 760, of inhabitants 2,764, of ploughs 230, of horned cattle 1,704, of carts 68. The Syud himself is an idiot, and incapable of managing his affairs, which are chiefly in the hands of his wife, a woman apparently of spirit and ability, under whom the estate is thriving.

The Talooka Villages.

39. The Enam village of the Puranteej Purgunna is Thoomra, held by the Gosaeens, who reside in a Mut at the village of Ageeol. Of the Enam villages of the Morassa Purgunna, one (Eentaree) is appropriated to the support of a small temple, the second (Hussabad) is held by a Brahmin, and the third (Surkundee) by a Charun. These are all held entirely free of any payment to the Company's Government, but Hussabad is subject to a sulamee levied by the Marwaree.

The Enam Villages.

40. The Mehwasee villages, in conformity with the orders of Government, as notified in a letter to the Acting Collector of Ahmedabad, under date 6th January 1823, are not included in the present Survey ; but a general summary of such information as was collected respecting them will be given hereafter.

The Mehwasee Villages are not included in the Survey.

41. The following tables and statements apply exclusively to the Khalsa Villages.

Tables for the Khalsa Villages.

Superficial contents of the Khalsa villages.

42. The superficial contents of the whole of the Hon'ble Company's Khalsa villages in each of the four Purgunnas respectively is as below :—

	Square British Miles.	Acres.			Standard Beegas.		
	Dcls.	Acres.	hs.	Ps.	Beegas.	w.	ww.
Puranteej Purgunna	155·27	99369	3	29	169084	3	7
Hursol „	29·03	18577	1	37	31610	15	0
Morassa „	104·81	67081	0	3	114142	11	1
Bayur „	50·98	32628	0	35	55518	19	6
Total	340·09	217656	2	24	370356	8	14

Quantity of Land in cultivation, of Arable Land in a waste or neglected state, and of unproductive Waste Land.

The quantity of land which is arable, and that which from its nature or situation is wholly unproductive, and that portion of the arable land which is cultivated, and that which is waste and neglected, appear in the following statement, according to the result of the present Survey :—

	Puranteej.			Hursol.			Morassa.			Bayur.		
	Bgs.	w.	ww.	Bgs.	w.	ww.	Bgs.	w.	ww.	Bgs.	w.	ww.
Cultivation	62531	6	3	7075	7	2	17485	16	16	13854	11	2
Waste for 1 year	17913	17	6	976	19	14	2032	4	15	414	0	3
„ 6 years	23302	9	10	1888	8	3	3264	10	4	2749	7	18
„ more	16015	16	11	4665	17	0	11909	0	0	8752	9	9
Waste not before cultivated	23015	6	18	10423	2	19	50238	3	11	22019	0	18
Total Arable....	142778	16	8	25027	14	18	84929	15	4	47789	9	10
Unproductive	26305	6	19	6583	0	2	29212	15	17	7729	9	16
Total Area	169084	3	7	31610	15	0	114142	11	1	55518	19	6

The above table is given below with acres :—

	Puranteej.			Hursol.			Morassa.			Bayur.		
	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.
Cultivation	36749	1	14	4156	3	36	10276	1	14	8142	1	0
Waste of 1 year	10527	3	22	574	0	27	1194	1	13	243	1	9
„ 6 years	13694	3	0	1109	3	9	1918	2	5	1615	3	8
„ more	9412	1	27	2742	0	15	6998	3	17	5143	3	5
Waste not before cultivated	13526	0	0	6125	2	21	29524	2	36	12940	1	36
Total Arable....	83910	1	26	14708	2	29	49912	3	8	28085	2	22
Unproductive	15459	2	3	3868	0	34	4542	2	13	4542	2	13
Total Area	99369	3	29	18577	1	37	67081	0	3	32628	0	35

[NOTE.—Five villages of the Morassa, and one of the Bayur Purgunna, were found to be so completely deserted, that it was not considered necessary to make any other measurement of them than the survey of the boundary from which the entire included area has been computed. The lands of these villages are entirely overrun with jungle, and no portion whatever is in cultivation; but as a part must necessarily be unproductive, such as beds of tanks and water-courses, &c. the arable and unproductive portions have been discriminated by an average rate. In the latter of these tables the totals are found by converting the equivalent total of beegas into acres; for in turning beegas into acres there is generally some remainder, the exclusion of which would cause an error of a few perches if the totals were formed by adding up the columns. The same practice is pursued in all the subsequent tables.]

Alienated Lands.

43. The alienation of land in these Purgunnas has been carried to but a trifling extent in comparison with what is found to be the case in other parts of the Ahmedabad Collectorate. The proportion of arable land alienated in the Puranteej Purgunna is only 20 per cent., in the Hursol it is 14

per cent., in the Morassa 6 per cent., and in the Bayur 12 per cent. In the Dholka Purgunna the proportion is 44 per cent., and in the Dushkroee it is 33 per cent. But it must be remembered that this is the proportion of the arable land: as almost all the alienated land of these Purgunnas is in cultivation, the proportion would appear much higher if shown upon the cultivated land alone. The amount of alienated land found at the time of the Survey in the actual possession and enjoyment of private individuals is shown in the following table, severally distinguishing the amount held by each distinct class of people:—

Table of the quantity of Alienated Land found in possession of each several Class of people at the time of the Survey.

	Puranteej.			Hursol.			Morassa.			Bayur.		
	Bgs.	w.	ww.	Bgs.	w.	ww.	Bgs.	w.	ww.	Bgs.	w.	ww.
Held by Koonbees	3045	12	8	578	5	6	263	4	1	641	8	6
„ Buneeas	1850	9	1	24	4	13	94	4	0	186	19	17
„ Brahmuns.....	4445	3	11	1348	6	17	941	0	15	1792	15	15
„ Desaees..	2697	12	10	97	4	5	161	2	18	....		
„ Rajpoots	2286	17	18	16	8	7	508	2	5	80	11	4
„ Moosulmans	4851	11	3	762	18	14	1990	3	16	814	17	0
„ Bheels	8508	8	16	771	13	3	1365	5	9	1163	8	8
„ Gosaeens, &c ..	1036	4	13	....			254	14	0	837	2	17
„ Wuswaeeya	733	10	5	89	15	11	227	14	18	278	14	3
Total Alienated..	29455	10	5	3688	16	16	5805	12	3	5795	17	8
Government Arable Land.,	113323	6	3	21338	18	2	79124	3	1	41993	12	2
Unproductive Land.....	26305	6	19	6583	0	2	29212	15	17	7729	9	16
Total Area.....	169084	3	7	31610	15	0	114142	11	1	55518	19	6

The above table is given below in acres:—

	Puranteej.			Hursol.			Morassa.			Bayur.		
	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.
Held by Koonbees ..	1789	3	23	339	3	14	154	2	29	376	3	33
„ Buneeas ..	1087	2	0	14	0	38	55	1	17	109	3	27
„ Brahmuns ..	2612	1	25	792	1	26	553	0	6	1053	2	17
„ Desaees.. ..	1585	1	20	57	0	21	94	2	33	....		
„ Rajpoots ..	1343	3	39	9	2	23	298	2	18	47	1	12
„ Moosulmans ..	2851	0	37	448	1	19	1169	2	19	478	3	21
„ Bheels	5000	1	18	453	1	39	802	1	18	683	2	37
„ Gosaeens, &c ..	608	3	38	....			149	2	29	491	3	37
„ Wuswaeeya ..	431	0	13	52	3	1	133	3	15	163	3	7
Total Alienated..	17310	3	17	2167	2	26	3411	3	28	3406	0	32
Government Arable Land.	66599	2	8	12540	3	3	46500	3	20	24679	1	29
Unproductive Land.. ..	15459	2	3	3868	3	7	17168	0	34	4542	2	13
Total Area.....	99369	2	29	18577	1	37	67081	0	3	32628	0	35

Remarks relative to the Alienations.

The largest portion of alienated land is held upon old pussaeta, or charitable grants, by the Brahmuns, and by the Moosulman inhabitants of the towns. In the Morassa and Bayur Purgunnas there is scarcely any vechan or goraroo; for during the long neglected and deserted state of the country, land could have been of little value—there could have been few sellers, and still fewer purchasers. A smaller proportion than usual is found appropriated to the Wuswaeeya, or village establishment of artizans and servants; and the reason is, that it is customary to remunerate them by a certain contribution of grain at the division of the produce after the harvest; and probably the village servants prefer this mode of remuneration, as more certain and

less troublesome than a grant of land. In some old established villages, the lands of the Wuswaeeya are found to have been brought up by the monied classes, but this cannot have prevailed extensively.

The Tullatee's Accounts not being complete, no comparison is made with them.

44. As the Tullatee's accounts are not complete for the whole of the villages, an account of the alienated lands under separate tenures cannot be added here. In villages where no Tullatee had been previously appointed, the alienated fields were inserted by the measurers upon the information of the Patels only; so that it is probable even the low account given above may be somewhat exaggerated.

Table of the Crops, showing the relative extent to which each was grown at the time of the Survey.

45. The total quantity of cultivated ground in each Purgunna has been already shown: the following table exhibits the various subjects of cultivation, and the relative extent to which each is carried; being the total amount of land found under each description of crop at the time the measurement was made:—

	Puranteej.			Hursol.			Morassa.			Bayur.		
	Bgs.	w.	ww.	Bgs.	w.	ww.	Bgs.	w.	ww.	Bgs.	w.	ww.
Bajeree and Joowar with Kuthol	47233	6	4	4810	9	18	9551	2	9	7986	13	3
Mut, Mug, and other poor Grains	12803	13	5	1957	12	7	6506	19	14	5687	13	4
Rice	191	3	8	129	15	10	526	11	8	90	12	17
Cotton	14	2	7	....			....			....		
Mukaee and Chaseea Wheat	297	11	5	27	19	10	673	5	18	13	12	9
Tobacco	1	1	1	....			....			....		
Sugar-cane and Maleeat.	31	13	19	0	18	12	18	17	17	17	6	16
Wheat, Barley, &c. in Fallow	1958	14	14	146	11	5	208	19	10	58	12	13
Total Cultivation ..	62531	6	3	7073	7	2	17485	16	16	13854	11	2
After Wheat and Barley, &c. included in the above Total	1629	14	13	473	17	18	1588	17	1	1544	19	12

The above table is given below in acres:—

	Puranteej.			Hursol.			Morassa.			Bayur.		
	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.	Acres.	Rs.	Ps.
Bajeree and Joowar with Kuthol	27758	3	6	2827	0	17	5613	0	22	4693	2	37
Mut, Mug, and other poor Grains	7524	2	21	1150	1	37	3824	0	16	3342	2	11
Rice	112	1	17	76	1	3	309	1	34	53	1	3
Cotton	8	1	7	....			....			....		
Mukaee or Chaseea Wheat	174	3	21	16	1	30	395	2	30	8	0	0
Tobacco	0	2	18	....			....			....		
Sugar-cane and Maleeat ..	18	2	21	0	2	7	11	0	15	10	0	30
Wheat, Barley, &c. in Fallow	1151	0	22	86	0	18	122	3	8	34	1	34
Total Cultivation ..	36749	1	13	4156	3	36	10276	1	14	8142	1	0
After Wheat and Barley, &c. included in the above Total	957	3	5	278	1	39	933	3	1	907	3	36

The proportion of wet and dry tillage in each of the four Purgunnas is as below :—

Quantity of Land under Wet and Dry Tillage respectively.

	Cultivation.			Purtur.		
	Bgs. w. ww.	Acrs. Rs. Ps.		Bgs. w. ww.	Acrs. Rs. Ps.	
Puranteej Purgunna.						
Wet..	4952 15 15	2910 2 36		1080 11 6	635 0 6	
Dry..	57578 10 8	33838 2 18		56151 12 1	33000 0 3	
Hursol Purgunna.						
Wet..	813 4 12	477 3 29		903 14 17	531 0 20	
Dry..	6260 2 10	3679 0 7		6627 10 0	3894 3 31	
Morassa Purgunna.						
Wet..	3329 18 17	1956 3 38		327 4 6	192 1 8	
Dry..	14155 17 19	8319 1 16		16878 10 11	9919 1 27	
Bayur Purgunna.						
Wet..	2722 17 7	1600 0 34		219 5 8	128 3 18	
Dry..	11131 13 15	6542 0 5		11696 12 2	6874 0 6	

The number of wells used for irrigating the above lands is as follows :—

Number of Wells used for Irrigation.

	Government.		Alienated.		Total.	
	Pucka or Built.	Kucha or Unbuilt.	Pucka or Built.	Kucha or Unbuilt.	Pucka or Built.	Kucha or Unbuilt.
Puranteej Purgunna	87½	69	119½	38	207	107
Hursol „	8	85	17	116	25	201
Morassa „	198½	49	118½	11	317	60
Bayur „	140½	1	119½	..	260	1
Total..	434½	204	374½	165	809	369

The number of wells out of use and in ruins appears to be as follows :—

Number of Wells out of use, and in ruins.

	On the Government Lands.	On the Alienated Lands.	Total.	Estimated Expense of Repair.
				Rs.
Puranteej Purgunna....	83	48	131	31956
Hursol „	4	2	6	1200
Morassa „	52	18	70	10975
Bayur „	20	15	35	10175
Total..	159	83	242	54306

The wells of the Puranteej Purgunna are chiefly built of brick, but of those in the other Purgunnas the major proportion are hollowed through rock, or built of rough unhewn stones. The cost of wells may be about as follows :— A brick well, not chunamed, for two koss, will cost 150 Rupees, if 20 haths deep; 225 Rupees if 30 haths; 350 Rupees if 40 haths. A brick well not chunamed, for 4 koss, will cost 400 Rupees, if 40 haths deep; 650 Rupees if 50 haths; and probably 1000 Rupees if 60 haths deep. Chunaming the well will increase the cost by about 30 per cent. A stone well, chunamed, for 2 koss, will cost 140 Rupees if 20 haths deep, and 210 Rupees if 30 haths deep. Wells dug through rock to the depth of 40 haths will cost 300 Rupees, and if wide enough to work 4 koss, 350 or 400 Rupees; and wells such as these require no chunam. In calculating the cost of wells it is to be observed that the sum actually expended upon a stone well is less

Cost of Wells.

in proportion than that expended upon a brick one; but the personal labour of the Ryut and his cattle is on the other hand much greater.

Depth of Water, and peculiarities attending the construction of Wells.

46. The depth at which water is found is pretty much the same throughout the whole District, viz. from 25 to 35 haths, or cubits. The deepest wells are near the bank of the Saburmuttee, and about the sides of the Bok. In the rocky parts of the country the depth of water is a secondary consideration: the builder of a well there can never foresee with any degree of certainty what obstacles he may meet with; his success depends upon the depth from the surface at which rock first appears, and on the breadth of the stratum of rock through which he must penetrate; for though water often appears almost as soon or before the rock, no well can afford a proper supply of water unless pierced completely through the rock to the gravelly soil which lies beneath it. Where this cannot be done, as in the kusba of Hursol, wells are immoderately expensive, and can be used to only a very limited extent. In the sandy soils, again, the water often finds its way almost to the surface itself, but it is so much mixed with the sand, that a well must be sunk a very considerable depth in order to arrive at a firmer soil, where the water is sufficiently pure to be fit for use; and this operation becomes very laborious, owing to the constant falling in of the upper part while the excavation of the lower is going on. But notwithstanding these difficulties, which are not of frequent occurrence, there are few parts of the country where the extension of irrigation requires to be more studiously promoted than in the Puranteej Purgunna. The soil is intrinsically inferior, and can never produce any great return in its natural state; the water is universally found to be remarkably sweet and good; and, speaking generally, wells may be constructed with more than ordinary facility. The extension of irrigation will equally improve the fertility of the soil and the condition of the people. The owner of a well becomes the master of good cattle, and gains a permanent interest in his village; while the cultivator of dry lands has no inducement, if he have the means, to possess himself of other than the most ordinary kind of bullocks, and he is ever ready to change his residence with every temporary change of fortune. It is a fact well worthy of note, that in the year 1869 Sumwut, A. D. 1813, a year of general distress and famine, the inhabitants of the village of Gurhee raised crops from their wells, which not only afforded them ample means of subsistence, but enabled them to pay to Government a higher Revenue than they ever did either before or since.

The extension of Irrigation is an object of peculiar importance in the Puranteej Purgunna.

Examination of what is to be expected from the offer of a certain quantity of Land free for 25 years to the Builder of a new Well.

47. As an encouragement to the erection of new wells, a measure has lately been adopted, offering as a premium to any cultivator undertaking such a work 2 beegas of land, to be held as pussaeta, free of all payment for 25 years; 3 beegas on similar terms if the cost of the well exceed 400 Rupees; and 4 beegas if it exceed 800 Rupees. In order to judge rightly of what is to be expected from this, it is necessary to calculate what the value of the remission given to the Ryut, and of the sacrifice made by Government, really is. Suppose a well to cost 300 Rupees, the Ryut building it will be entitled to 2 beegas of land; supposing the land to be annually cultivated (which it certainly will not be) with both a first and second crop, and taking the average of seasons, its value may be estimated as follows:—

Produce of a khurreef crop of bajeree on 2 beegas	20	Rupees.
„ rubbee crop, or wheat, or barley	28	„
Annual produce	48	„
Produce in 25 years	1200	„

Government share of the khurreef	$6\frac{1}{2}$	Rupees.
„ „ „ rubbee.....	$3\frac{1}{2}$	„
Total share annually sacrificed by Government	10	„
Sacrificed by Government in 25 years	250	„

If a man built a well with his own capital, the speculation might, upon these terms, be an advantageous one for him; as, allowing half (which is perhaps too much) of the gross produce to cover the cost of seed and the expenses of cultivation, he would receive annually 8 per cent. on the capital expended, and ultimately realize it twice over. But it is well known that a Ryut seldom if ever—in these Purgunnas certainly never—undertakes a well on his own capital: the requisite sum is borrowed from money-lenders, who charge at the least 12 per cent. per annum as interest. Say, therefore, that the prime cost of the well, 300 Rupees, is taken up on these terms; the annual remission made by Government is only equal to a third part of the interest, and the whole net produce of the two beegas cannot suffice to keep the interest down. The cultivation of superior kinds of produce (supposing the land to be equal to them) may alter the rates of profit, but this is a result that cannot be beforehand reckoned upon. The ground given may be called pussaeta, but as it is to be resumed at the expiration of 25 years, it is merely ground on which the Government dues of both the khurreef and rubbee crops are temporarily relinquished; and it does not enable the Ryut, as real pussaeta given up in perpetuity would, to hand down a provision for his children. Those terms certainly appear to be the best for both parties which enable the Ryut to clear the whole expense of the well in the shortest space of time, for as he takes up the money at interest, the actual sum that he must pay depends upon it. Consequently a decreased term of years, conjoined with an increased annual remission, would be more consistent, as well with the interests of Government as the wishes of the people, than the above plan, which has a directly contrary effect. Upon the whole, it may be doubted whether any graduated scale of remissions, founded on the depth of water and the cost of the well, can be formed, so as to inspire confidence in the people. The latitude which any calculation must allow to District Revenue Officers is a material objection; and the people, besides, do not understand the settling of terms after the work is done, and their money expended: the suspicion which was engendered under former Governments still continues, and can only be eradicated by time. It would be a simple, and yet it is conceived very beneficial, plan in these Districts, to give equal terms to all. A remission of the Government share of the rubbee crop on all the ground irrigated by the well during 10 years would be found a sufficient inducement in almost every case; and extraordinary occasions might be met by extraordinary terms. Under such a system the Ryut would doubtless often realize considerable profit; but if, by this means, the number of wells were increased, every new well being a positive gain to Government, the ultimate advantage to be derived is clear and indisputable. In granting gunwuts, it must be recollected that no deduction is either asked or given from the plough tax, which forms so material a part of the Revenue. Indeed the profit derived by the Ryut from the well, and the necessity imposed upon him of procuring good cattle for working it, will enable him to pay a higher tax, and thereby actually increase the Government Revenue, even during the term of exemption.

As the Ryut always builds a Well with borrowed money, the sacrifice made by Government in this way cannot be sufficient.

The Ryut should be allowed to clear his expenses in the shortest time possible.

There are doubts whether the calculation should be allowed to the District Officers.

It might, perhaps, answer, to give every man the same terms.

Net Land Revenue derived by the Hon'ble Company from the whole of their Villages together, for 8 successive years.

48. The net Land Revenue, exclusive of customs, derived by the Company's Government from the Khalsa, Talooka, and Mehwasee villages of these Purgunnas, during eight successive years, or from 1875 to 1882 Sumwut A. D. 1819 to 1826, is exhibited in the following statement:—

	Khalsa Villages.	Talooka and Enam Villages.	Mehwasee Villages.	Total.
	Rupees.	*Rupees.*	*Rupees.*	*Rupees.*
Sumwut 1875 or 1819 A.D	46361¾	4501	11215	62077¾
„ 1876 „ 1820 „	53595¼	4775	13199	71569
„ 1877 „ 1821 „	57543¾	4845	14181¼	76570
„ 1878 „ 1822 „	59702½	4382	15075¾	79160¼
„ 1879 „ 1823 „	55530½	4382	14658½	74571
„ 1880 „ 1824 „	49851	4382	14109¼	68342¼
„ 1881 „ 1825 „	44618¼	2100	9607	56325¼
„ 1882 „ 1826 „	47297	4382	10482½	62161¼

The Revenue, as exhibited above, does not appear to have increased since the management of the Hon'ble Company commenced, but the seasons have been unfavourable, at first from an excess, and latterly from a deficiency, of rain.

Revenue of each Purgunna separately.

49. The Revenue during the above years for each Purgunna separately has been as follows :—

	Sumwut 1875, A.D. 1819.	Sumwut 1876, A.D. 1820.	Sumwut 1877, A.D. 1821.	Sumwut 1878, A.D. 1822.	Sumwut 1879, A.D. 1823.	Sumwut 1880, A.D. 1824.	Sumwut 1881, A.D. 1825.	Sumwut 1882, A.D. 1826.
Puranteej.	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*
Khalsa	32539¾	37045½	39032	39838	38040½	34967¼	29899¾	32923½
Talooka	4501	4775	4845	4382	4382	4382	2100	4382
Mehwasee ..	8677	10167	10231½	10660¾	10688	10208½	6379	7220¼
Total..	45717¾	51987½	54108½	54880¾	53110½	49557¾	38378¾	44525¾
Hursol.								
Khalsa	1287	1855	1844	1959	1781	1797¼	1958½	1746¼
Mehwasee ..	2286	2692	3314¾	3459¾	3210½	3170¾	2598	2531¾
Total..	3573	4547	5157¾	5419¼	4991½	4968	4556½	4278
Morassa.								
Khalsa	8022¾	9577¾	10812	11280	9738¾	7922½	8199	8352¼
Mehwasee ..	..	..	..	80	60	30	30	30
Total..	8022¾	9577¾	10812	11360	9798¾	7952½	8229	8382¼
Bayur.								
Khalsa	4512	5117	5856¾	6625	5970	5164	4561	4274¾
Mehwasee ..	252	340	635	875	700	700	600	700
Total..	4764	5457	6491¾	7500	6670	5864	5161	4974¾

Average Rate borne by the Net Revenue to the Beega and Acre.

50. The average rate of net Land Revenue (taking the mean of 6 years) paid by the Khalsa villages in each of the four Purgunnas respectively, per beega and acre in Rupees, and per acre in English money (estimating the Rupee at 2*s.* 3*d.*), is shown in the following table:—

	On Total Cultivated Land.	On Total Government Cultivated and Arable Land.	On Total Arable Land, Government and Alienated.	On Total Area.
	Per Beega.			
	Rs. q. r.	*Rs. q. r.*	*Rs. q. r.*	*Rs. q. r.*
Puranteej	0 2 33	0 1 28	0 1 2	0 0 86
Hursol	0 0 77	0 0 34	0 0 29	0 0 23
Morassa	0 2 7	0 0 46	0 0 41	0 0 30
Bayur	0 0 79	0 0 35	0 0 27	0 0 22
	Per Acre.			
	Rs. q. r.	*Rs. q. r.*	*Rs. q. r.*	*Rs. q. r.*
Puranteej	0 3 15	0 2 19	0 1 73	0 1 46
Hursol	0 1 31	0 0 58	0 0 51	0 0 40
Morassa	1 0 42	0 0 79	0 0 70	0 0 51
Bayur	0 1 35	0 0 60	0 0 46	0 0 38
	Per Acre.			
	£ *s. d.*	£ *s. d.*	£ *s. d.*	£ *s. d.*
Puranteej	0 1 9	0 1 2	0 0 $11\frac{1}{2}$	0 0 $9\frac{1}{2}$
Hursol	0 0 $8\frac{3}{4}$	0 0 $3\frac{1}{4}$	0 0 $3\frac{1}{4}$	0 0 $2\frac{1}{2}$
Morassa	0 3 $0\frac{1}{4}$	0 0 $5\frac{1}{4}$	0 0 $4\frac{3}{4}$	0 0 $3\frac{1}{4}$
Bayur	0 0 9	0 0 4	0 0 $2\frac{3}{4}$	0 0 2

[NOTE.—In making the above calculations, the divided villages are excluded, because the Revenue which they pay to the Marwaree not being exactly known, no fair calculation can be made upon them.]

Payments and Charges disbursed from the Gross Revenue.

51. The payments and charges of collection disbursed from the gross Government Revenue have averaged since Sumwut 1875 (A. D. 1819), the year from which the Company's accounts date, annually 13,075 Rupees, or 19 per cent. The several items of these charges are exhibited below, as they were disbursed for the year Sumwut 1880 (A. D. 1824):—

	Rs.	*q.*	*r.*
Ghas Dana for Puranteej and Hursol only.....	4590	0	0
Grass to various Kolee Chieftains.....	2645	0	0
Sulamee to Kurrun Sing, of Ahmednuggur, a payment differing only in name from Grass.....	71	0	0
Keechuree to the Marwaree of Morassa, a payment of the same kind.....	2093	0	0
Keechuree to the Marwaree of Bayur.....	808	0	0
Thakoormundeer, a collection on account of a Mundeer, or Temple, in Puranteej.....	132	2	0
Dues of the Desaee Deearam (at 2 per cent.).....	1319	0	0
Desaee Sumust, or dues of the Desaees in a body, from Puranteej and Hursol Purgunnas.....	117	0	0
Dues of the Muzmoodar.....	130	2	0
Pay to the Tullatees.....	2174	0	0
Total....	14080	0	0

The village establishments of artizans, &c. are paid with an allowance of grain in lieu of money; and an allowance of the same kind is also made for the "Chora Khurch," or contingent expenses of the village in entertaining travellers, celebrating festivals, &c. These charges, consequently, do not appear above.

Guras and Wol, or Black-mail.

52. The "Guras" and "Wol," which may be properly translated black-mail, that used to be levied by the Rajpoot and Kolee Chieftains possessed of power, are now all settled and paid from the Kutcheree, so that no agent of these petty robbers is permitted to enter and distress the villages, under pretence of collecting his master's dues. The "Ghas Dana" payment made to the Gaekwar Government is of large amount, and requires a separate and particular notice.

Origin and amount of the Ghas Dana payment to the Gaekwar.

53. The "Ghas Dana" is a tax imposed by the Mahrattas for the support, as the name (Grass and Grain) implies, of the Moolgeeree Cavalry employed in the biennial collection of the Revenue. It was altogether unknown in the Morassa and Bayur Purgunnas until Sumwut 1850 (A. D. 1794), and in the Puranteej Purgunna it was levied for the first time so lately as 1862 Sumwut (A. D. 1806). It is still continued as the right of the Gaekwar Government, although the object for which it was imposed has ceased to exist, and, as at present fixed, the yearly amount paid by the Company's villages of each Purgunna is as follows:—

Puranteej	2414	Rupees.
Hursol	2176	„
Morassa	850	„
Bayur	1800	„
Total....	7240	„

The amount for Puranteej and Hursol is paid from the Company's Treasury; for Morassa and Bayur it is collected directly by the Gaekwar's Officers.

The amount due upon the Puranteej and Hursol Purgunnas is paid from the Company's treasury, and consequently the tax is not felt by any single village in particular; but in the Morassa and Bayur Purgunnas it is collected immediately by the agents of the Gaekwar, and the whole sum is levied upon the 2 kusbas and 6 other villages (3 rastee and 3 mehwasee), all of which complain more or less of the injury they experience from this system of divided collection.

The payment was suspended in A. D. 1819, and the Arrears ordered to be paid up in 1822.

54. At the first settlement of the Revenue which was made with the Company's Government, this collection was entirely suspended, and a reference upon the subject made to Bombay. In Sumwut 1878 (A. D. 1822) it was decided that it should continue, and the villages became liable for the arrears which had accrued, according to rates fixed at the time by the Political Agent in the Mahee Kanta. Nearly the whole of the amount thus due from the Morassa and Bayur Purgunnas was paid up by Desaee Diaram, who placed it as a debt against each of the villages, charging 5 per cent. munotee, and 12 per cent. per annum interest, and this debt in most cases remains unliquidated. The following is the quota at which each village considered as subject to the tax is rated, according to the settlement made above:—

Quota of each Village, as fixed by the Political Agent in the Mahee Kanta.

Morassa Kusba	600	Rupees.
Gabut	250	„
Total Morassa Purgunna	850	„
Bayur Kusba	1000	„
Choela	250	„
Demaee	250	„
Derolee	100	„
Endran	100	„
Amodra	100	„
Total Bayur Purgunna	1800	„
Total Morassa and Bayur....	2650	„

The villages upon which this tax is levied are none of them, with the exception of Dehemaee and the mehwasees, the entire property of the Company, and therefore the Gaekwar may claim the payment as due upon the territories of his tributary. But it is not of the payment itself, or of the amount required, that any complaint is made by the people; but only of the irregular manner in which it is collected. The arrears of ghas dana owing by the kusba of Bayur amounted, at the time of the Survey, to no less than 7,000 Rupees, and the people, if pressed, appeared to have but the option of deserting their homes, or taking up the money from the money-lenders, on the usual ruinous terms. The feeding of horsemen and Mosuls of various kinds, sent at different periods, and often remaining a length of time together, forms, independent of the annoyance experienced from the presence of these petty subordinates, a serious item of actual expenditure. Of the mode of realizing the ghas dana at Morassa the complaints are loud and many, and certainly grounded on some reasonable foundation. The accumulated arrears, amounting to 3,000 Rupees, were paid up in Sumwut 1878 by the Desaee Diaram, for which on closing accounts he received from the people 3,726 Rupees, being 29 per cent. above the sum at which the town is rated. In the following year (1879) the Desaee again acted as Munoteedar, and for the amount paid, 600 Rupees, he realized from the people 690 Rupees, and a charge was also incurred of 32 Rupees on account of 2 horsemen sent as Mosuls, making a total sum of 722 Rupees. Again, in 1880, a Bharot of Beejapoor was allowed to stand security, and collect the tax, and the following is the account for that year: —

Actually paid on account of Sadra	601	Rupees.
Bhat security at 4 per cent.	24	„
Munotee at 5 per cent.	30	„
Interest on all the above at 15 per cent. per annum.	43	„
Advanced by Bharot to 2 horsemen	81¼	„
Interest on ditto at 15 per cent.	14	„
Pay to 2 Peons of the Bhat	13	„
Expenses in entertaining Bhat	41¼	„
Total charges	246½	„
Total paid by the people	847½	„

It appears, then, that on this occasion the charges are 40 per cent. upon the amount assessed and actually paid to the Gaekwar Government.

55. In the two Purgunnas of Morassa and Bayur, the ghas dana certainly operates as a serious grievance: the simple measure of collecting the tax conjointly with the Company's Revenue, and paying the amount from the treasury of Puranteej,—thereby placing the four Purgunnas upon an uniform footing,—would be most acceptable to the people, and could not fail to be attended with beneficial consequences.

The injurious operation of this Tax in the Morassa and Bayur Purgunnas might be completely remedied by placing them on the same footing as the Puranteej and Hursol.

56. The "Sayur," or customs of the Hursol, Morassa, and Bayur Purgunnas, are divided between the Company and the Marwaree, but those of the Puranteej Purgunna belong entirely to the former authority. The amount realized under this head is shown below for five successive years, according to accounts furnished by the Kutcheree.

	Customs of the Puranteej Purgunna.	Company's share of the Hursol, Morassa, and Bayur Purgunnas	Total Customs received by the Company.	Marwaree's share of the Hursol, Morassa, and Bayur Customs.	Total Customs of the four Purgunnas.
Sumwut 1876, A.D. 1820..	5319½	4144¼	9463¾	4144¼	13608
„ 1877, „ 1821..	6140¾	5260	11400¾	5260	16660¾
„ 1878, „ 1822..	6351	4532	10883	4532	15415
„ 1879, „ 1823..	5739¼	3297½	9036¾	3297½	12334¼
„ 1880, „ 1824..	5577½	3405½	8982¾	3405¼	12388

The amount of the Company's customs, as given above for 1880, was realized under separate heads as follows:—

Amdanee, or Imports of the towns of Puranteej and Morassa.....	1792¾	Rupees.
Ruwangee, or Exports of the towns of ditto..	679¾	„
Radavee, or Transit Duties.....	4453½	„
Naka, or collections at outlying stations, on goods not passing through the towns	2056¾	„
Total share of the Company.....	8982¾	„
Expenses of collection.....	1069¾	„
Net Revenue derived.....	7913	„

All exports and imports of Puranteej pay an *ad valorum* duty of 2½ per cent., which is the usual rate levied at the principal towns of the Collectorate; but Morassa is an exception, the old and ill-defined rates of the Mahratta Government being still continued there, which upon an average are much lower than the general rate of 2½ per cent.

Assessment of the Honorable Company's Villages is made nominally in Kind; but by means of Plough taxes one half the Revenue is collected in Money.

57. The Hon'ble Company's villages in the Puranteej Purgunna and its dependencies are nominally assessed on the "Bhag Butaee" system, or that of taking a certain share of the produce of the land in kind. But the share so taken is very small, and the difference is made up by "Veeras," or money taxes, levied upon the ploughs employed in agriculture; and the operation of these two assessments together is, that upon an average, half the Government Revenue is collected in kind, and half in money. For by the Tullatee's accounts of the year 1880 Sumwut (A. D. 1824), it appears that in 45 villages of the Puranteej Purgunna the collections were as follows:—

	Rs.	*q.*	*r.*
Value of grain collected in kind	18712	2	18
Money Taxes	17710	2	5
Total....	36423	0	23

Method of determining the respective shares of the Produce.

58. In determining the respective shares of Government and the Ryut, the produce of the Ryut's estate is ascertained either by "Makhul" or by "Kultur," the former being an actual weighing of the grain, and the latter an estimate, made either while the grain is still standing ("Oobha"), or when it is cut and collected into bundles, but unthreshed ("Ogla"). When the makhul is practised the grain and other produce is collected in a "Kullee" or barn yard, generally near the village hedge, and there kept under the charge of a Havildar, and an Officer termed an "Oopree," until the whole of the harvest is got in, when the division of the several shares is made by

the Tullatee and Patels or farmers, after which the Ryut is at liberty to carry home his portion. When the produce is estimated by kultur, the necessity of a common kullee is superseded, each Ryut cutting, stacking, and housing his own crops as he pleases: the distress, also, which is often experienced from delay in dividing the grain after its collection in the kullee, owing to the irregularities of Tullatees and village farmers, is by this means entirely obviated. But on the other hand, the Desaees and Officers who attend to make the kultur often purposely linger out the operation, during which they are entertained at the cost, and to the annoyance of the people. Rubbee, or after produce, is always assessed by kultur, as the small quantity of such crops in each village would render the makhul inconvenient. Such of the villagers as choose to purchase any part of the Government grain are free to do so upon the spot; the rest is conveyed to the kusba of the Purgunna, where it is secured in a store room, and sold under the direction of the Koomavisdar or his agents. A wide door is here open for peculation by means of contract and forced prices, which, while the bhag butaee system exists, it is impossible to close.

Sale of the Government Grain is liable to abuse.

59. The share of the produce most commonly taken by Government is one-third and one-fourth of the khurreef or early, and one-eighth and one-tenth of the rubbee or late harvest. In addition to the regulated share, there are in nearly every village numerous extra cesses, termed "Babtees," which materially affect the cultivators, but make up little towards to the aggregate of the Revenue. The nature and various designations of these babtees have been explained in the Report on the Dholka Purgunna.

Ordinary share of the Produce taken by Government.

Extra Cesses are numerous.

60. In the Eastern Purgunnas, the makhul is unknown; and the kultur is by universal custom made, with an allowance of 20, 30, and 40 per cent., in favour of the cultivator: that is, 100 maunds are estimated as 80, 70, or 60 only. This is said to have been originally intended to compensate the Ryut for the seed and other expenses incurred in raising the crop, but it seems rather to be an indefinite indulgence, allowed in the wilder and poorer parts of the country. In the Puranteej Purgunna the allowance under the name of "Khor" is made in a regular way at the rate of 4 seers per maund, or 10 per cent. At present it is of little consequence after what method the Eastern villages are assessed, provided they are assessed as highly as possible, but as they advance in prosperity it will be necessary to supply some fixed and determinate rule for the vague latitude now allowed to the estimating Officer. The practice might be even at once abolished, by lessening the share of Government in a proportionate degree, and estimating 100 maunds as 100; a fairer estimate will always be obtained where the exact amount is required, than where any deduction on addition is permitted to be made.

Custom of estimating Cropsshort of the actual supposed Produce.

61. The veeras or money taxes are levied, as has been already observed, principally upon ploughs, those upon caste and occupations being much the same as in other parts. The rate of the plough tax varies greatly: the maximum is nominally fixed at 21 Rupees, and instances where this amount is exceeded are rare; the minimum may be taken at 4 Rupees; and it must be observed that the highest and the lowest rate are frequently to be found in the same village. The standard by which each individual cultivator is rated is his personal condition, and the means he possesses of securing a good crop. If a Ryut conceive himself to be rated too high, or a Tullatee or Patel conceive him to be rated too low, a representation is made to the Koomavisdar prior to the monsoon or sowing season, who, after due investigation, fixes the rate to be paid for the coming year; if no representation be made on either hand, the tax is assessed according to the rates of the previous year,

Method of levying and determining Plough Taxes.

as set down in the "Mumoona," or Government Register. This is an equitable and just rule of proceeding, but it is often broken through, and particularly in farmed villages. It is a common practice with the farmers to allow the plough veeras to run on in arrears until the lease expires, and then to demand payment of the whole sum, together with accumulated interest upon it. Instances may be adduced where great annoyance and material injury are from this experienced by the Ryuts: it is not done with any view to the accommodation or assistance of the people, but is a mere trick of these men to retain the village as completely in their hands as possible; and ultimately, when their interest in it has ceased, to produce accounts swelled by all the chicanery of interest and munotee. If every farmer, on the expiration of his lease, were obliged to sign a separate and distinct receipt in full of all demands upon the village he has held, and to enter into a "Moochulka" or penalty bond to have no further concern or transaction with it, the remedy might be effectual.

Injurious plan pursued by Farmers of allowing the Veeras to run in arrears.

Nature and operation of the Plough Tax.

62. The plough tax is not in reality a tax upon ploughs, but a tax upon each pair of working oxen employed in agriculture; for though it is allowable (but a point not distinctly ascertained) to use a third bullock, yet if four be employed, the tax is paid double; or, in other in words, each pair pays separately. The operation and meaning of the tax is an assessment on the land, measured by the space a single pair of oxen is capable of ploughing. No regular land measure is known in this part of the country, the people computing the size of their fields either by the quantity of seed required to sow them, or by the number of ploughs (that is pair of bullocks) required to plough them. The first method of computation is quite indeterminate, depending on the kind of crop sown, and liable to vary every season: the last is of a more defined nature, and, in the absence of any other, has been judiciously taken as the basis of a money assessment. In lieu of a plough veeras a kulsee veeras formerly prevailed in Ghuree and some old villages, and it continues at the present day in Asrora. The kulsee veeras is a cash payment proportioned to the quantity of grain produced, at a fixed rate per kulsee (the kulsee here being equal to only 10 maunds). Such a tax seems more consistent with the general nature of the butaee system, as it is simply nothing more than commuting a certain portion of the Government share of the grain for money, and thus it is a fluctuating tax, depending on the nature of the season alone.

Kulsee Veeras was formerly levied in lieu of a Plough Veeras.

The present method of Assessment appears well suited to the state of the country, and the substitution of a Beegotee Settlement is not deemed advisable.

63. The substitution of a beegotee in these Purgunnas, even now that a measurement by the beega has been made, does not appear a desirable measure, and the people themselves are very repugnant to it. The crops are mainly dependent upon the annual fall of rain, and are subject to great vicissitudes; besides which the people possess no resources on which they can rely to secure them against the effects of bad seasons, and to enable them to pay fixed beegotees. When distress is experienced, and remission of Revenue becomes necessary, this can be made with greater ease and certainty through the medium of a plough tax than a beegotee settlement. There is even some adavntage in keeping it fluctuating, as each cultivator may thus be dealt with separately and individually, which could not be the case were the remission made upon a class, all of which may not have suffered equally. Upon the whole, the present system, though liable to many objections, appears to be well suited to the character and condition of the country. It is the same as is pursued throughout Eedhurwara and all the neighbouring Districts, and has doubtless been formed from experience of its fitness, or rather has gradually formed itself, and is not the offspring

of any theory or fanciful experiment. If, however, it should be deemed advisable to hazard an innovation for the sake of realizing the whole of the Government dues in money, this might be effected without throwing the risk of the season more upon the cultivator than it is now, by commuting the Government share of the produce, computed as at present, for a kulsee veeras, or payment in money per kulsee, either at a fixed rate, or according to the market price of the day; the former would be most convenient, the latter most congenial to the wishes of the Ryuts.

Assessment of the Towns and divided Villages.

64. In the kusbas and villages divided between the Honorable Company and the Marwaree, the right of the latter, with the single exception of Morassa, extends only to a share of the Revenue derived in kind immediately from the land. The taxes and money payments are levied exclusively by the Company, and in two instances the Company levy only the taxes, leaving the produce of the lands entirely to the Marwaree. The taxes in the towns of Puranteej and Bayur are assessed upon the ploughs in a similar manner to those of ordinary villages, but in Morassa and Hursol they are levied in fixed sums upon the distinct castes. Morassa, as respects the assessment of the town, is very peculiarly situated: the revenue there is classed under three heads; viz. 1*st*, a keecheree to the British Government; 2*nd*, keecheree to the Marwaree; 3*rd*, a ghas dana to the Gaekwar. These are collected separately, and by distinct agents: the amount demanded is apportioned among the sevaral castes liable to taxation, the head man of each of which subdivides and parcels out their respective quota among those under his control, according to the "Kurum" or personal circumstances of each individual. The three collections are made at different periods: that on account of the British Government is first realized, after which the Marwaree's commences, through the agency of his own Officers, and lastly the ghas dana is collected by people commissioned for the purpose from Sadra. The consequence of this divided system of assessment is, that from the fall of one year to the spring of the next, one or other of the collections is constantly in progress, whereby the domestic ease and comfort of the people are abridged, and their presence being necessary to answer all the demands in turn, they are prevented from engaging in any undertaking which might keep them long from home. The injury and annoyance to which this exposes them has induced the people to come forward with a proposition, which they confidently offer as likely to produce great benefit to themselves, and ultimate advantage to Government. It is to abolish in toto the kurum veeras upon the classes engaged in trade; and, instead of the present ill-defined and irregular duties, to levy an equal tax of $2\frac{1}{2}$ per cent. on all imports and all exports, leaving the radaree and naka as at present; the half share of this sayer collection taken by the Marwaree to be considered to include his keecheree; and any difference of loss to him that upon a calculation the new plan may appear to involve, to be defrayed from the Company's Treasury; the ghas dana also to be paid from the Government Treasury, and these two payments, together with the loss of Revenue to Government itself, to be balanced by a house tax upon the mercantile classes levied by the Officers of the Company alone. The taxes, according to the existing rates, upon artizans, and those engaged in neither trade nor agriculture, to be considered as a part of the land Revenue, and collected jointly by the Marwaree and Government, without reference to the ghas dana. This plan is more fully explained in the remarks on Morassa: it appears an advantageous one, as it would bring the place more immediately under the control of Government, and render the British

Peculiar Assessment of the Town of Morassa.

The injurious effect of three distinct Collections has induced the people to offer a new plan of Assessment, which is recommended to consideration.

authority more respected and looked up to than it can be at present. The inhabitants of other places would be attracted by the more certain protection of the British name, and the present community would be enabled, on the faith of that protection, to extend their mercantile transactions, and thereby increase the future Government Revenue. As each merchant would pay exactly according to the extent of his dealings in trade, there might be some danger of the larger capitalists, who chiefly traffic in Hoondees and money transactions, contributing less than their proper proportion; but the house tax would probably be distributed among themselves in such a manner as to obviate this; and as the whole body of merchants, taken together, would pay no larger a proportion of their profit to the Government which protects them than they do at present, there would be no alteration in the bazar prices, and therefore the change would in no way affect the other orders of people; neither, for the same reason, would it have any influence upon the dealings of foreign merchants with Morassa. As a principal feature of the plan is to lessen as much as possible the influence of the Marwaree, it may be expected to meet with opposition from him; but as far as respects the ghas dana, (to do away with the present system of collecting, which is the grand point to be gained,) no just grounds of objection can be anticipated; as it is merely proposed to transfer the office of Collector from a Barot or Desaee, whose actions are under no control, to the immediate agents of Government, from whose treasury the payment may be made with perfect certainty, with no charge and no trouble.

Two examples of the mode of Assessment in these Purgunnas.

65. To elucidate the nature of the complicated system of assessment pursued in these Purgunnas as far as possible, two "Daras," or detailed accounts of the mode and rate of assessment for a given year, are here subjoined—the first for the kusba of Puranteej, held exclusively by the Company, and the second for the kusba of Bayur, a divided village.

The Dara of the Township of Puranteej, held exclusively by the Honorable Company.

DARA OF PURANTEEJ FOR SUMWUT 1880, A. D. 1824.

Assessment of the Government Lands.

In certain divisions, where the land is manured, the khurreef produce in general paid one-half share, and in others, where the land is not manured, two-fifths. A tract of manured land, from which the Kusbatees enjoy a "Sookree," or fee, paid one-third share to Government; ground at a distance from the village paid two-fifths and one-third variously; land newly recovered from waste paid one-fifth or one-fourth the first year, and one-fourth or one-third the second; and some loose fields of bajeree grown in a ravine paid one-fourth share. Crops grown in the Bok on "Koowetur," or irrigated land, paid two-fifths, or one-third, if the fall of rain were scanty; mukaee or Indian corn in the same situation paid one-third or one-fourth; rice paid in general one-fourth. The babtees or extra cesses to which the above crops were liable are alike, and shown below, as deducted from the general heap prior to the division of the shares:—

"Surkaree Babtee," or Cesses on account of Government.

$1\frac{1}{2}$ seer per maund as "Surkaree Seeree," or fee to Government.
$\frac{1}{4}$ „ „ "Tolamnee," or fee on weighing the grain.
6 „ 100 maunds of grain as "Khidmutgaree," or service fee.

"Purbaree Babtee," or Cesses for other persons and purposes.

$\frac{1}{4}$ seer per maund as "Gam Khurch," or for village expenses.
$\frac{1}{4}$ „ „ "Desaee Dustooree," or fee to the Desaees. From Tul and Wuree crops this is $\frac{1}{8}$ seer.

¼ seer per maund to the Havildar, who also receives ½ maund of grain in the husk, and 20 bundles of bajeree kurbee per plough. The Puggees receive precisely the same.

⅛ seer per maund to the Kotwal, who also receives 15 seers of grain in the husk, and 15 bundles of bajeree kurbee per plough.

¼ seer per as "Tolamnee" to the Buneea who weighs the grain.

1 seer per plough as "Thakoormundeer," or donation to the Mundeer in the Town.

4 seers per maund allowed as "Khor" to the cultivators themselves.

In addition to the above, the Ryuts from their own share paid 1 seer per maund of grain in the Government share to Government, and also ¼ maund per plough to the carpenter, the same to the blacksmith, the leather dresser, and to the barber. When the amount of produce was determined by kultur in place of makhul, the only babtees exacted were one seer to Government, and ¼ seer as tolamnee per maund of grain in the Government share, paid from the Ryut's share alone. Tobacco and riengnee paid a "Beegotee" or money payment per beega of 5 Rupees; vegetables in general of 2½ Rupees. Four beegas watered from a particular well, called "Sehedoo Bhatawala," paid a gross sum of 9½ Rupees; and four other beegas sown with tul by Patel Kullan, paid the gross sum of 12 Rupees. Some bajeree, baota, and buntee grown in a ravine, paid 1 Rupee on each "Kodalee" or pickaxe used in turning up the ground (no plough being employed), together with 5 seers of grain to the Patels and 5 also to the Desaees. Seengora grown in the dry beds of tanks paid one-third share to Government, after the deduction of a ¼ seer per maund for the Desaees, the same for the Patels, the Puggees, and the Havildar, and ⅛ seer for the Kotwal.

Rubbee and huree crops were assessed as follows:—

Wheat and barley grown in the large Bok paid one-fifth; cheena one-sixth; kang and mukaee one-seventh; wheat or barley grown in the lesser Bok paid one-sixth; cheena one-seventh; kang and mukaee one-eighth. Of the produce of land cultivated for the first season with rubbee, one-sixth share only was taken in the larger, and one-seventh in the lesser Bok. [*Note.*—The larger Bok is that opposite to, and Northerly from the site of the town; the Bokree, or little Bok, is that below, or South of it.] Wheat, barley and cheena, irrigated from wells on the high grounds in the vicinity of the kusba, paid one-eighth, and at a distance from the kusba one-ninth; kang and mukaee in the high grounds paid one-tenth.

Government lands watered from alienated wells paid only one-half of the above shares to Government.

The following were the babtees, which were deducted from the general heap of the rubbee produce prior to the divisions of the shares:—

Purbaree Babtee.

¼ seer per maund as tolamnee.

10 seers per koss as gam khurch.

10 „ „ Desaee dustooree. The same to the Havildar, the Sootar, the Loohar, and the Hujam.

20 seers per koss to the Mochee.

5 „ „ „ Puggees.

4 „ „ „ Kotwal.

5 „ maund allowed as khor to the cultivators.

If the produce be estimated by kultur, the above babtees are paid from the cultivator's share alone.

Alienated Lands.

"Oodhur Sulamees," or payments in the gross, were made for certain tracts of land, as below :—

554½	beegas	paid 61 Rupees and 12 maunds of grain.
644½	„	held by Rajpoots paid 4 Rupees and 12 maunds of grain.
84	„	of pussaeta held by the Patels paid 50 Rupees.
417½	„	held by the Kusbatees paid 20 Rupees.
661	„	held by the Kazee paid 3½ Rupees and 12 maunds of grain.
80½	„	held by Burtuneea Rajpoots paid 23½ Rupees.
32	„	held by Boras paid 8 Rupees and 3 maunds of grain.
20	„	also held by Boras paid 1 Rupee.
12	„	paid 4½ Rupees, held by Chaora Rajpoots.
5	„	paid 1¼ maund of grain.

[NOTE.—The above quantities are according to the Tullatee's estimates, and not by measurement.]

The 7 Patels were allowed to cultivate rubbee crops upon the alienated lands as far as they could with 7 ploughs; but if they exceeded this, they paid ½ Rupee on each additional plough. The Koonbees paid ½ Rupee, and other classes ¼ Rupee, per plough employed in raising rubbee produce on the alienated land.

The alienated wells are 35 in number, and 21 one of them paid 30 seers of grain per koss as a fee to Government.

"Veeras," or Taxes.—Plough Veeras.

32½	ploughs,	paying	13	Rs. each,	realized	423½ Rupees.
2	„		12½	„ „	25	„
7½	„		12	„ „	90	„
1	„		11½	„ „	11½	„
9	„		11	„ „	99	„
5½	„		10	„ „	55	„
0½	„		8	„ „	4	„
1	„		7	„ „	7	„
1	„		6½	„ „	6½	„
1	„		6	„ „	6	„
4	„		4	„ „	16	„
1	„		3	„ „	3	„
66	ploughs paid				745½	„

Being Rs. 11-1-18 per plough.

Oodhur Veeras, or gross payments by certain classes :—

Koonbees.....	14½	Rupees.
Suthwara.....	9½	„
Bambee.....	52	„
Total Veeras....	821½	„

To defray the gam khurch, or contingent expenses of the village, the Patels levy 1 Rupee per plough, or a larger equalized sum if this should not be sufficient to cover the charge. They also levy 25 Rupees from the alienated land-holders for the same purpose.

THE DARA OF BAYUR.

The Dara of Bayur, held conjointly by the

The collections at Bayur are made by three different and distinct authorities. The produce of the land is equally divided between the Company

and the Marwaree, and collected jointly; the plough and other taxes are collected exclusively by the Company; and, lastly, the ghas dana payment is realized by the agents of the Gaekwar Government.

Honorable Company and the Marwaree.

The "Dara," or rule by which the Marwaree and Company's collections were made in Sumwut 1882 is stated by the Patels and Tullatee to have been as follows :—

Assessment of Government Lands.

Of the total produce of every description of crop, the Company took first a half seeree, or $\frac{1}{2}$ seer per maund (one-half of this, or $\frac{1}{4}$ seer per maund, would be the perquisite of the Buneea, were the grain measured by makhul in the village kullee). The Ryut's share was then divided off at the rate of one-half of bajeree, joowar, and kuthol; one-third of mut, gowar, mukaee, and sathee; one-fourth of kodra, tulee, and all rubbee produce; one-fifth of kang and cheena; one-fourth of produce raised by Oopurwareea cultivators, and the same of land newly brought into cultivation. From the Ryut's portion a half seeree, or $\frac{1}{2}$ seer per maund, was afterwards deducted, on account of the Marwaree. From the Government portion, the fixed amount of $7\frac{1}{2}$ maunds was first deducted as the Mandwa cloth, and placed to the account of the Company, for which a money commutation is paid from the treasury; and the residue was then equally divided between the Company and the Marwaree. The produce is estimated by kultur, and 100 maunds are reckoned as only 60.

Thus of 100 maunds of bajeree produce, the division would be as below :—

	Maunds.	Seers.
100 maunds are reckoned by kultur as.....	60	0
On which the Company's half seeree would be..	0	50
Leaving	59	10
The Ryut's half share then would be.....	29	25
The Marwaree's half seeree upon which is	0	15
Leaving to the Ryut.....	29	10
And adding what is relinquished by kultur	40	0
The real share of the Ryut becomes	69	10
From the Government portion	29	25
Deduct the Mandwa cloth	7	20
And there remain	22	5
The half share of which is	11	$2\frac{1}{2}$
Adding the Marwaree's seeree, as above	0	15
The Marwaree's share becomes	11	$17\frac{1}{2}$
To the Company's half share.....	11	$2\frac{1}{2}$
Add the Company's seeree, as above.....	0	50
And the Mandwa cloth	7	20
And the Company's total share becomes ..	19	$12\frac{1}{2}$

Sugar-cane was grown on "Gunwut," or distinct agreement, at a beegotee of 4 Rupees, and one-half of that sum, or 2 Rupees, was paid, if a second crop were raised from the original stalks (Khorwar). This crop has been grown on gunwut since 1878, varying in beegotee from $2\frac{1}{2}$ to 5 Rupees.

Alienated Lands.

These were all held entirely free of any payment whatever to either Government.

Veeras, or Taxes.

The veeras, as collected exclusively by the Company, were as below :—

Plough Veeras, paid by Pateedars and Koonbees.

97	ploughs, paying	12	Rupees each,	realized	1164	Rupees.
11	„	11	„	„	121	„
30	„	10	„	„	300	„
5	„	9	„	„	45	„
9	„	8	„	„	72	„
1	„	7	„	„	7	„
3	„	5	„	„	15	„
156	ploughs realized				1624	„

Being Rs. 10-1-64 per plough.

Oodhur Veeras.

Buneeas	28	families, paid	312½	Rupees.
Ganchees, or Oilmen	8	„	58½	„
Hujam, or Barbers.....	7	„	32½	„
Lohar, or Blacksmiths	3	„	29	„
Koomar, or Potters.....	3	„	11½	„
Mochee, or Shoemakers ..	4	„	27½	„
Durjee, or Taylors.....	4	„	36½	„
Bambee, or Tanners.....	77	„	77	„
Dhers			20	„
Dhers for weaving cloth			2	„
Bheels			50	„
Bora			2	„
Total Veeras..			2283	„

The ghas dana payment is fixed at the annual sum of 1,000 Rupees, and is collected by kurum veeras, or personal taxes, levied according to the circumstances and means of each individual.

Table showing the Population by Castes of the whole of the Honorable Company's Khalsa Villages.

66. The population of the Khalsa villages in each of these four Purgunnas, according to a census made in the most minute manner, is as follows :—

	Puranteej.			Hursol.			Morassa.			Bayur.			Total of the Four.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Koonbees, Lewa and Kurwa	2183	1446	3629	97	92	189	209	163	372	250	174	424	2739	1875	4614
Koonbees, Anjna	157	128	285	110	69	179	598	527	1125	464	396	860	1319	1120	2439
Rajpoots	208	155	363	5	3	8	33	30	63	1	1	2	247	189	436
Bheels	3142	2406	5548	220	164	384	1109	876	1985	666	427	1093	5137	3873	9010
Brahmuns	624	526	1150	178	151	329	300	259	559	258	191	449	1360	1127	2487
Bhats and Charuns	206	133	339	69	51	120	41	29	70	60	38	98	376	251	627
Buneeas..	1141	994	2135	112	90	202	716	625	1341	147	104	251	2116	1813	3929
Artisans..	1127	824	1951	114	85	199	569	480	1049	170	120	290	1980	1509	3489
Dhers and Bhungees	683	501	1184	64	49	113	392	326	718	130	90	220	1279	966	2245
Various other Castes	368	244	612	32	14	46	248	205	453	25	18	43	673	481	1154
Total Hindoos	9839	7357	17196	1001	768	1769	4215	3520	7735	2171	1559	3730	17226	13204	30430
Moosulmans	968	873	1841	150	107	257	1048	949	1997	122	86	208	2288	2015	4303
Total	10807	8230	19037	1151	875	2026	5263	4469	9732	2993	1645	3938	19514	15219	34733
Slaves..			153			18			225			12			408
Grand Total..			19190			2044			9957			3950			35141

Tables showing the general and proportional Resources of the Khalsa Villages of each Purgunna separately.

The number of houses occupied by this population, the stock of cattle, &c. which they own, and the aggregate general resources of each Purgunna, are shown below :—

	Square Miles.	Villages.	Houses.	Souls.	Horned Cattle.	Horses.	Sheep and Goats.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.
	Decls.									*Rs.*
Puranteej.	155.27	66	5527	19190	18261	149	1607	1976	360	36470
Hursol ..	29.03	10	675	2044	2388	34	246	277	40	1865½
Morassa .	104.81	35	3272	9957	9502	78	1209	1150	271	9588¾
Bayur ..	50.98	15	1181	3950	4354	39	221	609	144	5548¾
Total ..	340.09	126	10655	35141	34505	289	3283	4012	815	53473

The proportion of the above to the square mile and the acre is as follows :—

		Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.		
							Rs.	*q.*	*r.*
Puranteej Purgunna.	Per Mile..	35½	123	117½	12½	2¼	234	3	52
	Per Acre..	1/7	1/2	1/3	1/25	1/112	0	1	46
Hursol „	Per Mile..	23¼	70¼	82¼	9½	1¼	65	1	0
	Per Acre..	1/27	1/8	1/8	1/70	1/360	0	0	40
Morassa „	Per Mile..	31	95	90¾	10¾	2½	82	2	0
	Per Acre..	1/20	1/7	1/7	1/55	1/133	0	0	51
Bayur „	Per Mile..	23	77¼	85¼	10¾	2¾	6	1	0
	Per Acre..	1/28	1/8	1/8	1/74	1/277	0	0	38
Total of 4 Purgunnas.	Per Mile..	31¼	103¼	101½	11¾	2¼	161	0	68
	Per Acre..	1/20	1/6	1/6	1/54	1/159	0	1	0

[Note.—In calculating the Revenue per square mile and per acre, the divided villages are excluded, and the payments made by them divided, but they are excluded in all the other calculations: were the average of the Revenue struck inclusive of them, the rate per mile would be 64 Rupees in Hursol, 91¼ Rupees in Morassa, 108¾ Rupees in Bayur, and 154¼ Rupees on the whole together; but such an average would be erroneous, because a portion only of the Revenue paid by these villages is included in the Revenue derived by the Honorable Company.]

Proportional Numbers of the several Castes, and other Averages.

67. In the above account of the population, the Bheels preponderate very greatly over every other caste, for if the whole population be divided into twentieth parts, they will comprize 5¼ of such parts; the Koonbees will comprise 2½, the Moosulmans 2½, the Buneeas 1¾, the Artisans 1¾, the Anjna Koonbees 1½, the Brahmuns 1½, the Dhers 1½, the Bhats ½, the Rajpoots ¼, the Slaves ¼, and the various other castes ¾. The males exceed the females in the ratio of about 100 to 78; each house is occupied upon an average by 3¼; each plough cultivates upon an average about 14 acres of land, and pays an average revenue of Rs. 13-1-31, or £1-9*s.*-11¾*d.* In the Khalsa villages of the Dholka Purgunna each plough cultivates upon an average 12½ acres, and pays a Revenue of 34¼ Rupees, being equal to £3-17*s.*-4*d.* Though the number of dwelling-houses as above given is 10,655, yet only 5,211 are tiled, or worthy of being considered permanent buildings; the greater part of the rest are hovels, scarcely sufficient to protect the inmates from the weather, and subject to constant accidents. The cattle are very numerous, being almost equal in number to the human beings.

68. The miserable appearance presented by most of the villages has been already mentioned; and the following table will show how small a proportion of the Khalsa villages possess comfortable or substantial dwellings :—

Miserable condition of, and small rate of Revenue derived from, single Villages shown.

	Villages entirely deserted.	With no tiled Houses.	With 1, & less than 5 tiled Houses.	With 5, & less than 10 tiled Houses.	With 10, & less than 20 tiled Houses.	With more than 20 tiled Houses.
Puranteej	5	32	9	2	8	10
Hursol	..	8	..	..	..	2
Morassa	11	13	1	1	3	6
Bayur	2	8	..	..	2	3
Total..	18	61	10	3	13	21

69. The small rate of Revenue derived from a large proportion of the villages will be apparent from the following :—

	Villages paying nothing.	Paying less than 20 Rupees.	Paying between 20 and 50 Rupees.	Paying between 50 and 100 Rupees.	Paying between 100 and 500 Rs.	Paying between 500 to 1000 Rs.	Paying between 1000 to 2000 Rs.	Paying more than 2000 Rs.
Puranteej ..	..	..	6	8	29	12	8	3
Hursol ..	..	1	3	2	3	1	..	..
Morassa ..	9	6	4	6	7	..	3	..
Bayur.. ..	2	2	1	4	3	..	3	..
Total..	11	9	14	20	42	13	14	3

Evils arising from the want of good and substantial Dwellings.

70. The want of good and substantial dwellings creates in the Ryuts unsettled habits, very detrimental to the general progress of improvement. They consider themselves as never permanently fixed to any one spot, but are ready on the smallest accident or alarm to quit their temporary homes, and wander abroad in search of some asylum which they conceive may be more congenial to them. Many men make a practice of settling for one or two years in any new village, for the sake of the exemption usually allowed, and the premium which is often given; being always ready to desert again to the next new village, which may offer them the like advantages. Whole villages are sometimes moved upon the most frivolous pretence from one site to another, and all classes, from the Patel to the meanest cultivator, regard the desertion of a village, or, as they figuratively express it, the leaving it without lamp, a matter of very little moment. The people readily disperse themselves through the surrounding country, but they seldom lose sight entirely of their right in their own village, and they are generally ready to return if an opportunity be offered to them. A measure lately adopted, of giving a beega of land free for 25 years to every cultivator who tiles his house, and the obligation imposed upon the farmers of villages to leave at the expiration of their leases a certain number of tiled houses within them, may, it is hoped, have some effect in improving the condition of the District in this respect. It were better, perhaps, that deserted villages should be re-established directly by Government itself, and not through the agency of farmers; but if the latter method be pursued, too much attention cannot be paid to the character and resources of those who are permitted to contract for such an undertaking. Men of no capital and little credit will always be found ready to enter into such speculations, in consideration of the consequence which they conceive will thereby attach to them, and the few maunds of grain which they may perhaps be able to derive; such are the Kusbatees, who hold several villages of the Morassa Purgunna, which, at the expiration

Leases for the re-establishment of Villages should not be given to other than respectable and substantial men.

of the leases, will revert to Government virtually in their original condition; the people brought to them will depart or attach themselves to some other farmer, and if they are to be again established with any prospect of success, it will be necessary to establish them entirely afresh.

The Khalsa Villages, taken collectively, are not much involved in Debt, although their circumstances are so poor.

71. The Government villages, taken altogether, cannot be said to be much involved in debt, although their circumstances are miserably poor. Upon some single villages, particularly near the kusba of Puranteej, the demands of creditors are large; but in general they are too wretched to obtain long credit, and too newly established to be hampered with ancient bonds. Every village is obliged to keep a running account with some Buneea of its chora khurch, or contingent expenses; and the yearly balances of this account are sometimes paid by notes of hand, which run on at exorbitant interest. Instead of the money allowed by Government to defray this charge in other parts where the collections are made entirely in cash, a seer of every maund of gross produce is here given up to the Patels, and by them made over to the Buneea, on whom they afterwards draw; but the value of the grain is seldom if ever sufficient to cover the actual expenditure. The most serious item of this expenditure is generally found to be the presents made to religious mendicants. This part of the country is much infested with vagrant Gosaeens, who travel through the country in gangs of twenty and thirty together, visiting every village, whether rich or poor, and exacting food for themselves, horses, and even dogs, and a present of money besides. Of this serious tax, connected as it is with their religious and superstitious feelings, the people are not very ready openly to complain; but there is no doubt it presses hard upon them in this remote part of the country.

The Contributions levied by vagrant Gosaeens are a serious tax upon the people.

Crops are frequently forestalled.

72. The poverty of the people obliges them frequently to forestal their crops in order to procure present subsistence: this they do on very disadvantageous terms, paying at the time of harvest $1\frac{1}{4}$ or $1\frac{1}{2}$ maund for every maund received six months before, and if the crop fail, they are made to sign a note for the money value of the grain required in repayment. The seed required for sewing is very commonly borrowed on the same conditions. The transaction is conceived to be perfectly regular, and is entered as such in the Buneea's book. The usual interest at which money is borrowed is from 15 to 25 per cent., and the lender also requires a premium called munotee, of 5 or 8 per cent., which is added to the sum lent, and interest charged on the whole. The terms on which the Bheel Thakoors borrow are still more ruinous, as will be presently explained. The Koonbees in some villages are personally much embarrassed, and obliged to stint themselves of every luxury, such as milk, ghee, and all the produce of the dairy, in order to keep down the daily accumulating demands of their creditors.

Method of settling Accounts.

The method by which accounts are settled between the cultivators and the Buneeas is curious, and indicative of the power which the ignorance of the former throws in the hands of the latter: the Buneea attends with another accountant, and the Koonbee is furnished with a heap of dried muhora berries for the purpose of counting the rupees, quarters, and annas; the former then reads off the items of his account, and for each sum so many of the berries are placed in three separate heaps, denoting the rupee and its fractional parts; when the account is finished, the heaps are counted, and the quarters and annas turned into rupees. Suits in the Adalut are not often, though they are sometimes, filed for debts against the cultivators; in fact, money is seldom lent at the legal rate of interest, so that the lender in most cases puts himself beyond the power of recovering by such a process: his security is, that on any dispute arising he can effectually deprive the

Ryut of any future supply; and so dependent are the Ryuts, so accustomed to live from hand to mouth, that the security is generally found to be good.

Schools are found only in Towns.

73. With the exception of the Buneeas, all classes are alike ignorant of reading and writing. In the towns there are schools, where children are taught to read, write, and cypher, the latter comprehending the fundamental rules of arithmetic, and simple and compound interest, which they calculate in a very expeditious manner. A boy's education costs little: he takes with him to his master every morning a handful of grain, and on festival days a pice or so in addition; and when his education is complete, the parents present the master with 2 or 3, and never more than 4 Rupees for his trouble. The scholars at these schools all belong to the towns where they are established, the villagers even at the shortest distance never thinking it worth while to send their children.

The Mehwasee Villages.

74. The Mehwasee villages belonging to the Honorable Company are in number 39, of which 27 are in the Puranteej Purgunna, 8 in the Hursol, 1 in the Morassa, and 3 in the Bayur: they lie principally upon the out-skirts of the Rastee villages, and, so long as they can be themselves restrained in obedience, are a barrier against foreign plunderers. They are subject to the controul of Kolee Thakoors, or Chiefs, who pay an annual Revenue to Government, and are allowed to retain all the interior economy and management of their villages. The tract of country in which they are situated is extremely wild, and the inhabitants of them have been long used to a life of plunder; but they are now all submissive to the arm of authority, and generally quiet and peaceably disposed.

Mehwasee Villages of the Puranteej Purgunna.

75. The most respectable among the Thakoors is the Waghpoor Chief, who holds, besides Waghpoor, five other dependent villages, and one (Peeloodra) which contains a population of Brahmuns and Koonbees, and, until lately, was managed and regarded distinct from the mehwasees. Waghpoor itself is strongly posted among the ravines of the Saburmuttee; a chasm runs through it, nearly meeting the bend of another from the opposite direction, so that the passage between is only a few feet in breadth. On the inner side of this is the Thakoor's house, and, as it were, the citadel, on which the people depend for security. The Waghpoor estate (as it may be called) occupies all the space south of the Hautmuttee, and on both sides of the Bok as far as the Rastee villages of Nuwagam and the kusba of Puranteej; it includes, also, the tract of bhata ground in the bed at the junction of the Hautmuttee and the Saburmuttee, which is probably the most valuable part of the whole. Some land is also claimed as attaching to it on the north side of the Hautmuttee, but the nature of this claim was not inquired into. At Waghpoor are the tombs of Captain Montresor and Lieutenant Sandwith, who died while with the detachment under Lieutenant Colonel Stanhope, in 1821: the body of the latter was subsequently disinterred and conveyed to Ahmedabad. The tombs are carefully preserved by the people, and the spot where they stand is enclosed with a hedge. Myund is a considerable village on the East bank of the Bok, and near that of the Hautmuttee, the Thakoor of which was once very powerful, and receives considerable dues as geeras; the population is partly composed of Koonbees, who keep the lands in good cultivation. Upon the bank of the Suburmuttee, below the Rastee villages, are situated Seetwara, Poera, and Endrajpoor, all of which are strong, and the former very large; the two latter bear a bad name. South of Endrajpoor, and at the distance of 10 miles from Puranteej, is Sadra, the head quarters of the Political Agent in the Mahee

Kanta, who is attended by a detachment of regular Troops: these undoubtedly tend to overawe the Company's Districts, as well as those of the Gaekwar, for which they are immediately intended. The other Mehwasee villages of Puranteej lie to the South-west of the Rastee, and a cluster of them is crowded upon the banks of the Kharee river, which are mostly poor and ill-conditioned, and each held by a separate Thakoor. Upon the extreme North-eastern limit of the Purgunna, beyond Ageeol, there is a little place, called Gamree, consisting of a few huts, in a ravine of a hill, the Bheels of which are under no controul, and never seen, flying into the thickest of the jungle whenever any one in the semblance of authority approaches them.

Mehwasee Villages of the Hursol Purgunna.

76. One of the most troublesome villages is Antrolee, in the Hursol Purgunna, and seated upon the left bank of the Meswa, a little above the kusba. Its position is a very weak one, and it is divided into two separate "Wasses" or divisions, each governed by a distinct Thakoor, but both of the same family. There is an hereditary quarrel between them: the one, Doljee, is apt to be refractory, but the other, Poonjajee, is very submissive and orderly. The inhabitants, who are notorious thieves, depend not at all on the strength of the village, but when threatened with danger immediately desert it, and take shelter in a thick jungle, which they keep for the purpose on the opposite side of the river. Dependent upon Antrolee are 7 other villages, the best of which is but a collection of miserable huts; but included with the Mehwas estate of Doljee is the fine Brahmun village of Mota Chekla, at which the Tullatee was continued so lately as Sumwut 1880 (A. D. 1824), it having been previously let on a running lease, and treated rather as a Talooka than as a Mehwasee village. The Antrolee Thakoors are treated with great consideration, receiving from Government 400 Rupees as guras, and 500 as compensation for the naka, or customs, which they formerly levied for themselves. In virtue of the former payment, they ought certainly to be made answerable for all robberies, according to its real meaning and object; but at present they are well known to harbour plunderers, if they do not plunder themselves. The place has long borne the same bad character that it does at present, and was destroyed in Sumwut 1852 (A. D. 1796) by the Troops of the Gaekwar. Lower down the Meswa, and below Hursol, are the fine and large villages of Pudoosun, Uneeor, and Burodra, the latter containing 500 houses, and a respectable body of Buneeas: a small number of Koonbees is to be found in each of them, and their lands, though very extensive, are well cultivated. The yearly Revenue paid by these three villages alone amounts to nearly 3,000 Rupees. The Thakoors are connected with each other by family, and with the chiefs of Antrolee, but more nearly with Doljee than with Poonjajee: they are all Mukwanas, that is they belonged to the Mukwana tribe of Rajpoots prior to their degradation; they never style themselves Jhalas, although, among the pure Rajpoots, this is the more common term, the two, either separately or conjoined, being equally applicable to the same tribe.

Mehwasee Villages of the Morassa and Bayur Purgunnas.

77. Gajun, of the Morassa Purgunna, bears a bad character: it is situated near the kusba, but a low chain of hills, and some very thick jungle, traversed by a bad footpath, intervenes. The village stands at the bottom of a rocky hill; it is composed of huts scattered and detached from each other, and the ground immediately about it has been cleared and cultivated. The Bheels of Gajun are closely connected with those of the Pooras of Bakrol called the Panch Padhur, a most notorious nest of thieves. During the progress of the Survey the whole of Gajun, with their Thakoors, were hired as a guard, and for a trifling consideration attended night and day, and behaved

faithfully. The three Mehwasee villages of the Bayur Purgunna (Amodra, Derolee, and Eendran) are of some size, and in good circumstances: their lands are pretty well cultivated by means of numerous "Mooaras," or dependent hamlets, some of which have been established for this express purpose, and others owe their origin to dissensions in the Thakoor's family; but the effect in both instances tends alike to increase cultivation, and in wild waste tracts the establishment of mooaras is an object worthy of attention. These villages were in former times very turbulent and troublesome, but are now sufficiently quiet and orderly.

Revenue Assessment and constitution of the Mehwasee Villages.

78. The Mehwasee villages are subject to no regular mode of assessment, the Thakoors paying an annual sum to the Kutcheree, according to a settlement made with each by the Collector of the District. They may afterwards use their own discretion in collecting from the cultivators, there being no interference on the part of the Government Revenue Officers: in exercising this discretion they are commonly observed to collect their dues in money, each individual of the village paying a certain sum, according to his kurum, or personal circumstances. It is seldom that the Thakoors have any man about them capable of keeping accounts, or even of reading and writing; and, consequently, no record is kept of receipts and disbursements, or of the sum that should be paid by each cultivator. It is customary where the Koonbees reside for the Bheels to pay nothing whatever, the whole of the assessment falling upon the Koonbees; and it seems to be in all cases understood that any deficiency of Revenue arising from blight, want of rain, or other causes, falls personally upon the Thakoor alone, who is answerable to Government. To this loose method of collection must be attributed in a great degree the embarrassed, impoverished, and miserable condition of most of the Thakoors. As no rule has yet been laid down defining the per-centage of the gross proceeds which is to be considered as their right, it is difficult to say whether the Revenue hitherto taken from the mehwasee proprietors exceeds a fair and just proportion or not. By the parties themselves all complaints are referred to this source; but the amount does not appear disproportionate to the resources of the villages, were the whole which would be available for assessment to the Officers of Government equally so to the Thakoor. This, however, is not the case: there are often relations who must be allowed to cultivate free of rent; sometimes, as mentioned above, the Bheels must be altogether exempted; and always the equality upon which the Chief lives with his dependants or tenants deters him from inconveniently distressing them. In the absence of all accounts, he cannot be exactly sure how much is really due to him; and by his peculiar situation in personal connection with each individual, he cannot enforce his demands by any harsh process when it happens to be otherwise. Deficiencies, therefore, will follow even the most considerate and equitable settlements, and to meet these the Thakoors have but one resource, that of borrowing from the "Sowkars," or bankers. So poor is their credit, that for any advances of money they are obliged to pay 8 and 10 per cent. as munotee, or premium, and 2 dokra, or 24 per cent. per annum as interest; added to which they must give the security of a Bhat, which is a charge of 15 or 20 Rupees more. Suits in the Adalut are never thought of, and consequently the laws against usury wholly disregarded, because the lenders know well that before a process can be returned the debtor will have fled to the hills, and be beyond its reach. Where security is so bad, the capitalist cannot be blamed who demands a high rate of interest for the money he lends; but the state of dependence and wretched poverty in which the

Hard terms on which the Thakoors borrow Money.

Thakoors appear to be kept is really lamentable; and, by whatever causes it may be induced and promoted, calls urgently for some speedy and effectual remedy. Whether the appointment of Tullatees to the Mehwasee villages would be an advisable measure or not is a doubtful question: on the one hand, the accounts would thereby be kept in a regular and proper manner, and the Thakoor would be enabled to realize his full dues, a part of which might, after the discharge of the Government demands, be regularly set apart for the liquidation of his debts; besides which the rights both of the Thakoor and of Government would by this means be distinctly ascertained, and the Revenue could be kept at a low rate with great confidence when the exact value of the remission was understood. On the other hand, the measure would take away from the appearance of independence, which is a source of pride to the Thakoors, and subject them to the petty insults and annoyance which cannot be separated from the presence of the subordinate officers of authority.

Advantage and disadvantage of appointing Tullatees to the Mehwasee Villages.

79. The Marwaree villages of the Hursol, Morassa, and Bayur Purgunnas are, upon the whole, perhaps, of rather more than equal value with those of the Honorable Company; but they are mostly parcelled out among Bhats and religious characters, and among the Raja's servants and dependants. The whole are much intermixed with each other, and consequently the security which the measures of the British Government ensure to its own possessions extends also to those of the Marwaree. But it is worthy of consideration whether the Marwaree ought not to be obliged to bear his share in the protection of the country, and to keep up a certain contingent force at each of the kusbas. Some arrangements of the kind have been made at former periods, but they are very loosely observed, and it is seldom that any other armed Troops than those of the Honorable Company are present for duty, excepting during the short period when the Raja is personally engaged in making his collections.

The Marwaree Villages are much intermixed with those of the Company.

The Rajas should keep up a Contingent Force for the protection of the Country.

80. It may not be altogether irrelevant to add here an explanation of the relationship and possessions of the several members of the Eedhur family, and a few words relative to the district of Eedhurwara, and its principal towns, Eedhur and Ahmednuggur. The founder of the present family of Rathor Princes of Eedhur was Unundsing, the second son of Ujeetsing, the Raja of Jhodpoor, who accompanied his elder brother, Ubhesingh, when deputed by his father to take possession of Ahmedabad, about the year 1724 of the Christian era, or Sumwut 1780. Unundsing, in conjunction with his younger brother, Raesing, conquered the District of Eedhurwara, and enjoyed the full and quiet possession of it until his death. He was succeeded by his son, Seoosing, who, among the first acts of his reign, was obliged to cede to the Peshwa a part of his possessions, including a moiety of the Hursol, Morassa, and Bayur Purgunnas. Seoosing had five sons, Bhowansing, Sugramsing, Zaleemsing, Oomursing, and Undursing; and among these he divided his territories. The first, as the "Laljee," or heir apparent, remained with his father at Eedhur; to the second was given Ahmednuggur; to the third the remaining portion of Morassa; to the fourth that of Bayur; and to the fifth Wuharee and Goelwara. The remaining portion of Hursol was held for a long time by the most powerful of his Putawut or feudal nobles, the Chief of Chundurnee; and it is only lately that the fallen state of that family has caused it to be resumed. Seoosing and his eldest son, Bhowansing, died within the same week; and the son of the latter, Gumbheersing, succeeded to the throne he still enjoys when a child of four or five years of age. Bhowansing upon his death-bed entrusted the care of

the young Raja to Zaleemsing, but disputes for some time ran very high between the brothers, and were not settled without an appeal to arms, and a reference to Jhodpoor. Gumbheersing, the Raja of Eedhur, and head of the family, is now childless, his only son, Oomedsing, or, as he is usually called, Laljee Maharaj, having died of the small-pox about three years ago. His loss is much regretted, and he seems to have been respected by all classes.

81. Sugramsing of Ahmednuggur had two sons—Kurunsing, the present Raja, and Purtabsing. The latter was adopted as his successor by Zaleemsing of Morassa, who appears to have been an able man, and raised himself to more power than any other member of the family. He engaged in a contest with the Rawul of Malpoor, whom he completely reduced, and died lately without male issue; but he has left a daughter still unmarried, who is the cause of much bickering and contention between the Rajas of Eedhur and Ahmednuggur. Kurunsing has two sons, Purtesing and Ujeetsing, the eldest of whom, now about 10 years of age, was adopted by his uncle Purtabsing, who died young and childless, and the youth is consequently the present Raja of Morassa, although the management of affairs is entirely in the hands of his father. Oomursing of Bayur died lately without a son, and his Ranee manages the estate: he has left a daughter still unmarried. Undursing is still alive, and residing at Ahmednuggur: he is blind, and has two sons, Umersing and Narsing, grown up to manhood.

The Descendant of the original Rao is now at Pola.

82. The original Rao of Eedhur, by whose ancestors the city is supposed to have been founded, was also of the Rathor tribe of Rajpoots, but quite unconnected with the Jhodpoor family: his descendant continues to reside at Pola in great poverty and obscurity, and about 20 or 30 years ago he was attacked and reduced to obedience by Gumbheersing. The Rawul of Malpoor is his near relation and original dependant, and also of the Rathor tribe. The present owner of this petty State is Tukutsing, whose father Zaleemsing was slain by his namesake Zaleemsing of Morassa, during the disputes which ensued upon the death of Seoosing; nor was the son Tukutsing allowed to take possession of his inheritance until he had relinquished one half of the Morassa Choth (a fourth of the produce of the villages of that Purgunna which he before enjoyed), and consented to commute the other half for money payment under the head of guras. Malpoor remained some time deserted, and was not re-established till Sumwut 1846. The Revenue of the Rawul is from 3 to 4,000 Rupees, out of which he has to pay 451 Rupees sulamee to the Company's Government; 400 Rupees as keecheree to the Marwaree; and 300 Rupees as ghas dana to the Gaekwar; in all 1,151 Rupees.

The Rawul of Malpoor is his relation.

Inferior Chiefs of Eedhurwara.

83. The whole of Eedhurwara, parcelled out as it is among a variety of petty Chiefs, is considered as the hereditary kingdom of the Eedhur Prince, to whom all the inferior lords are required to yield obedience. The Chieftain of Ahmednuggur affects to consider himself independent, but the general voice of the people is decidedly against him. Among the Putawut or feudal nobles, the "Bomeea" (men of the soil) hold their lands by an hereditary and immemorial tenure, while the other Guraseeas merely hold at the pleasure of the Chief, who may recall the grant of their possessions when he pleases. The Bomeeas are all of the Purmar tribe of Rajpoots, the highest in the scale of rank, as the direct descendants of Veekramajeet or Veekramadeetya; and the same as the Puars of Malwa and Central India. The Rathors are taught by their Bhats to consider themselves as inferior only to the Purmars, and the Jadoo or Jahrejahs: the Oodepoor and Jeypoor

families,—the Sheeshoodeea and Kutchwaha,—though the first in wealth and power, are not considered so in rank, but are placed below the Chowan and the Solunkee, in addition to those already named.

District of Eedhurwara.

84. Eedhurwara collectively comprises an extensive tract of country, stretching from the Saburmuttee to Wagur, and from Mewar to Puranteej, over a superficial surface of about 2,500 square miles. It consists of a succession of abrupt rocky hills and rich valleys, for the most part overrun with thick luxuriant jungle, but, where cultivated, producing the finest crops in great abundance. Sugar-cane was observed growing in perfection near the town of Eedhur, and it is remarkable that the "Rent," or Persian wheel with buckets, is in common use for drawing water, but is not seen further to the South in any of those parts of Guzerat where irrigation is principally attended to. It has evidently been introduced from Marwar and Sind, and as it materially lessens the labour of the cattle and men also, the use of it might be advantageously extended to other parts of the Province. The

Town of Eedhur.

capital town of Eedhur is approached from the South over a fine plain; and from its peculiar position, locked in between two overjutting hills, it is not visible to the traveller until he finds himself suddenly beneath the wall. The town is small but neatly built, and has a well supplied bazar: it has no other trade than what it derives from the thoroughfare passing through it between Malwa and North-western Guzerat, and between Ahmedabad and the celebrated temples of Amba Bhowanee, distant only about 40 miles to the Northward. At the back of the town a paved ghaut and a gateway have been constructed over the ridge, which is in that part of very inferior height; and the front of the valley is closed by a wall erected by the last Prince; but as he died before the work was entirely completed, it has been suffered to remain in an unfinished and useless state. Still further in front there are two singular mounds of rock, which were formerly fortified, and served to defend the point from which the town is most easily assailable. Ancient Eedhur extended much beyond the present, over the ground to the Westward along the foot of the hills: a confined spot of table land which occurs about midway up the high hill, which now overhangs the town to the Northward, was then reserved as a citadel or place of security, and it seems to have been well adapted for such a purpose. The whole circuit of the hill is encompassed by an irregular wall, the ruins of which are still distinctly traceable, and the road up is defended by several successive gateways, flanked by bastions, and connected by breastworks with the main wall. There is one little building remaining upon this spot of singular beauty and chasteness of style, and there are also some Shrawuk temples, remarkable for their great size. Upon a lofty summit, above the highest pinnacle of the range, there is a small tower, said to have been built and inhabited by a former Princess, but it is difficult to conceive how any human being could exist for any length of time in so exposed and confined a situation. This pinnacle is a land-mark, which may be distinguished for a great distance round, and the view obtained from it is extensive, and exceedingly fine.

Fortress of Ahmednuggur.

85. The fortress of Ahmednuggur stands upon the Hautmuttee river, nearly midway between Puranteej and Eedhur. This place was built by Ahmed Sooltan, the founder of Ahmedabad, and is on a well chosen spot, as a curb upon the lawless, and a protection to the quiet parts of the neighbourhood. The appearance of the river here is such as to attract peculiar notice: it flows round the North and West sides of the wall over a bed of solid rock, sometimes in wide basins, and sometimes divided into various shallow streams; but everywhere bearing rather the mark of the chisel and

hammer than the ordinary appearance caused by the attrition of flowing waters. And so rough and uneven is the surface of the rock in all parts, that no horse can cross it; and on the other hand it may be crossed in the dry season from point to point by a man dry-shod. It is said that the stone used in the building of the wall was dug from its native bed in such a manner as purposely to form a new channel for the river, into which it was turned by means of a bund from its old course, which passed immediately through the space now encircled by the walls; and by this means the place was rendered impregnable without cannon on two of its faces. If the tale be true, it marks a great degree of judgment and foresight, and a superior mind in the projector, and the appearance of the ground seems to confirm it, as the position of the bund is pointed out, and may be distinctly observed. The wall of Ahmednuggur is $1\frac{1}{4}$ mile in circumference, and, in those parts where it does not follow the course of the river, is exactly similar in form to that of the town of Ahmedabad. It is partly in a ruinous condition, the stones having fallen down in heaps, but being each entire and uninjured, as if freshly quarried. Of the included space only about one-fourth is covered by the houses of the inhabitants, and it is said, in consequence of some unlucky omens at the foundation, never to have been fully inhabited, or to have flourished. The ruins of houses, however, show that it was once very considerably larger than at present, but a proof that it never prospered much is that it never extended beyond the walls. Nearly in its centre, there is a small fortification of an oval shape, containing the remains of a very handsome Moosulman palace and garden, supposed to have sometimes formed the residence of the Kings of Goozerat. A little stone is dug by the "Sullats" or stone-cutters, from the sloping ground between it and the river, and also from the bed of the river itself. Of the population, a part consists of Borahs, who, as well as those of Morassa, make annual journeys to the hills, and carry on a bartering trade with the Bheels, carrying to them wearing apparel, ornaments, tobacco, gunpowder, salt, &c., and receiving in exchange gums, honey, wax, &c. These are the ostensible objects of traffic, but the most profitable part of the business to both parties, probably, is the sale or exchange of stolen property, and the plunder collected during the year. But notwithstanding this, these Borahs may be looked upon as an useful class of people, keeping open, as they do, a communication with wild and lawless tribes.

Doongreea Bheels.

86. The whole of Eedhurwara is much infested with Bheels, who bear the appropriate name of Doongreea, or the hill Bheels, and commit the most daring robberies even at the very gates of Eedhur. They generally murder before they plunder, for they are the Bheels of Wagur, not of Guzerat; and they live literally in the holes of the rocks among the hills, which abound in caves and hollow places well adapted for purposes of concealment.

Native Revenue Officers.

87. The four Purgunnas of Puranteej, Hursol, Morassa, and Bayur are all under the charge of one Koomaveesdar, whose Kutcheree is at Puranteej; a subordinate, with inferior powers, is placed at each of the three other kusbas, under the title of Thanadar. The only hereditary Revenue Officer is a Desaee, who receives as his established right 2 per cent. of the gross collections made on account of Government. A Muzmoodar has also been appointed within these few years, whose due is 1 Rupee from each village. There are two Buneea families, comprising a large number of individuals, who style themselves Desaees, and are employed in making estimates of crops, and other Revenue detail. These men exercise a very injurious influence over the Ryuts: they lend them money, and interfere with their concerns

The Desaees exercise an injurious

influence over the Ryuts.

in every way that they possibly can. They have also been much in the habit of farming villages: but they cannot be too much discountenanced; for their real or supposed influence in the Native Kutchery deters the timid Ryut from preferring complaints to the Koomaveesdar, however great may be the extortion committed upon him. Instances have been found where Patels, who had obtained favorable leases, have transferred them to a Desaee merely for the purpose of gaining his interest. To these Desaees belongs the payment made under the head of Desaee Sumust. The village Tullatees are by no means so efficient, generally, as in other parts of the Collectorate; for, being paid in proportion to the Revenue they collect, it is necessary here to place many villages in the charge of one man in order to afford him even a livelihood, and where the entire Revenue of a Purgunna hardly exceeds that of many single villages in the Cherotur, it is not to be expected that men of ability and character will be found to fill an office so poorly remunerated. Many villages are left entirely without Tullatees, and in nearly all the records kept by these Officers were found to be very vague and imperfect.

The Tullatees are not very efficient.

It is doubtful whether an exchange of Villages with the Marwaree, so as to concentrate the Company's Possessions, is really desirable.

88. The scattered situation of the Honorable Company's villages causes much difficulty in the detail of the Revenue management, which would cease were an exchange effected with the Marwaree, so as to concentrate them. Yet it admits of a doubt whether such an exchange would be really desirable: some sacrifice would be necessary in order to reconcile the weaker party, and consequently the Revenue might at first be expected to decrease. Ultimately, under closer superintendence, it would probably increase more rapidly than can be anticipated at present; but the amount of Revenue in this District can never be of any material consequence. While the surrounding Purgunnas are held as at present, the chief advantage to be derived from this possession is that it overawes the lawless tribes, and secures the peace of the country; and as this is done by the name alone of the British Government,—for no Military force is kept up here,—it is certainly rather desirable than otherwise to possess an extended frontier line of villages, however intermixed they may be with those of a foreign territory.

A mutual restitution of Villages, according to the division of 1753, would be advantageous to the Company.

89. To place these Purgunnas again in the *statu quo* of the original division of A. D. 1753, upon the principle of mutual restitution, would be greatly to the advantage of the Honorable Company, as is evident from the following statement of transfers that it would necessarily involve:—

The Honorable Company must resign the following villages:—

Villages that the Company must resign.

Alumpoor .... } Of the Morassa Purgunna, to the Raja of Morassa.
Sirroorpoor.... }

Nana Chekla .. }
Uneeor ..... } Of the Hursol Purgunna, to the Raja of Eedhur.
Rojhur ..... }

Pudoosun .... Of the Hursol Purgunna, to the Thakoor of Wurragam.

Nuwanuggur.. } Of the Puranteej, but originally of the Hursol Purgunna,
Roopal ..... } to the Raja of Eedhur.

Wurdhura .... Of the Kuppurwung Purgunna, to the Raja of Bayur.

Villages that the Company must receive.

The Honorable Company would be entitled to receive the following:—

Senawara .... }
Moolod.. .... } Of the Morassa Purgunna, from the Morassa Raja or his Putawut.
Dholwaneea .. }

Nathawara.... } Of the Morassa Purgunna, from the Malpoor Rawul.
Tackheea .... }

Kutwareea .... } Of the Morassa Purgunna, from the Wurragam Thakoor.
Rampoor .... }

Dhurumree. ... } Of the Bayur Purgunna, from the Bayur Raja.
Meetroreea. ... }

Akodura..... Of the Bayur Purgunna, from the Chieftain of Amleeala.

The share in Gabut and Wuneead of the Morassa Purgunna, from the Morassa Raja.

The entire tribute of Malpoor from the Raja of Eedhur.

Half the tribute of Wurragam from the Raja of Eedhur.

A half share of the town of Megruj Thana, and probably the four unknown villages from the Raja of Ahmednuggur.

Such a transaction as this, however, might possibly involve greater intricacy and trouble than is at first apparent, as the various petty Chiefs would in turn immediately claim from each other the many villages which, during the long disturbed state of the country, have changed masters; and, perhaps, the broad rule of actual possession at the time the Honorable Company first established their authority here is the best rule that can be adopted.

Date of the Survey, and its result.

90. The Survey of these Purgunnas was commenced in December 1824, and the field work brought to a termination in March 1826. The principle upon which it was conducted is precisely the same as that followed in the Survey of the Dushkroee and Dholka Purgunnas. In the Khalsa villages a minute admeasurement was made of every field, but in the Talooka and alienated villages a general Survey of their limits only was taken, and the Mehwasee villages, in conformity with the orders of Government, were left entirely unnoticed. The plans of the villages of the Puranteej and Hursol Purgunnas were laid down upon a scale of 5 inches to 1 mile, but in the Morassa and Bayur Purgunnas, where the tracts of waste are so extensive, the scale was reduced to $2\frac{1}{2}$ inches, as more convenient for use, and equally answering every required purpose. No measurement is known ever to have been made before of this country, and therefore the result of the Survey cannot be shown in comparison with any former accounts. The Tullatee's records, so far as they went, were found to be wholly unworthy of notice, and spaces set down by them at 25 beegas have been known to prove by measurement more than 300 beegas. As the assessment has not hitherto been made with any reference to the quantity of land cultivated, the want of exact measurement has not, it is true, been felt; but without some operation similar to this Survey, it would have been impossible to have introduced, at any future period, a settlement by beegotee, should that hereafter be deemed an advisable measure. But the want of any information, or correct knowledge, even, on the part of the Native Revenue Officers, relative to the general condition, extent of cultivation, and even the situation, of the villages not immediately contiguous to the kusbas, was most remarkable; and on these points it is hoped that the documents of the Survey will place the Collector in possession of full and accurate information, which he could hardly have acquired by any other means. The boundary disputes were not so numerous or intricate as generally found in other parts, but all such as did exist were adjusted during the progress of the Survey, and there are none now remaining.

P. M. MELVILL,
Acting in Superintendence of the Survey.

Office of the Ahmedabad Survey, January 1827.

REPORT

ON THE

VEERUMGAM PURGUNNA OF THE AHMEDABAD COLLECTORATE.

BY LIEUT. P. M. MELVILL,

7TH REGT. N. I.

Jhalawar.

VEERUMGAM was formerly considered the capital of a tract called Jhalawar, which occupies the North-eastern quarter of what is generally known as the Peninsula of Guzerat. Anciently Jhalawar was bounded to the North by Kakrej; to the East by the Bhal; to the South by Arratum; and to the West by the lesser Kattywar, and the Runn. To attempt to trace these various divisions of the country as they stood in times antecedent to the Moosulman Conquest is impracticable and useless. They were chiefly limited by the possessions of certain families or tribes, and have no natural boundaries by which they may be defined. The ancient name of the country was Neher; under the Rajpoot dynasty there was one extensive kingdom, of which Neherwala, or Puttun, was the capital; and subject to this were a variety of small independent States, from which have sprung the Talooks, or Military Fiefs, of the present day. The Puttun kingdom is supposed to have been founded by Vurn Chaora, in the 7th century; and the throne was possessed first by the Chaora Rajpoots, then by the Solunkees, and lastly by the Waghelas, who were superseded by the Moosulmans in the 13th century. The Chaora and the Solunkees do not now exist in this part as a tribe of any consequence; but the Waghelas, who are a branch of the Solunkees, still possess independent rights, as the Talookdars of the Dholka Purgunna.

Origin of the Veerumgam Purgunna.

2. The limits of Jhalawar are now confined to the few Talooks or feudatories held by Rajpoot Chieftains of the Jhala sept or tribe, of which the principal are Hulwud, Leemree, Wudwan, Mornee, Wankaneer, and Luktur. So far back as the tradition of the country extends, the first capital of the Jhalas was Hulwud, from which the other petty States have branched off. Among the rest, Leemree and Suchana are said to have been simultaneously bestowed upon two members of the reigning family. Suchana is reduced to the condition of a poor village near Veerumgam, but it appears to have been once the seat of an independent prince; and what is now the Veerumgam Purgunna may be considered the original limit of the Suchana

principality. How or when it declined is not known ; but it must have either merged in, or have been transferred to Kungawuttee Nugree, as a town of that name, held by a Jhala prince, and situated upon the present site of Kuruktul, is known to have been taken and destroyed by the Moosulmans immediately prior to the rise of Veerumgam.

Rise of the Town.

3. This is a town of comparatively modern date, and did not exist as a place of any consequence until the time of the Moosulmans. Its situation in a military point of view is a good one, as commanding the entrance into Kattywar ; and on this account, probably, it was chosen as the station of the Officer subordinate to the Soobehdar of Ahmedabad, under whose charge the District of Jhalawar was placed, and of which it consequently became the Capital. The fine tank, which is still to be seen in good preservation at Veerumgam, was built by Sudraj Jey Singh, who reigned at Puttun in the 11th century, and is celebrated for his buildings in various parts of Guzerat; but the place continued long after this in a very inferior condition, being a mere "Poora," or dependency upon Kungawuttee. It owes its rise to a family of Kurwa Koonbees, who came from Champaneer, and whose present representatives hold the Desaeeship of the District, the Patelship of the town, and a considerable Jagheer within the Purgunna. The Patelship has been vested in them from the first period of their arrival ; but the Desaeeship they obtained by degrees, gradually supplanting the Buneeas, who held that office first, and afterwards the Nagur Brahmuns, who succeeded them. The sunud is still shown by which Allumgeer bestows upon the Koonbee Treekum and the Nagur Roopjee the joint Desaeeship of Veerumgam and its dependencies, which are enumerated, and comprehend the whole of what is now known as Jhalawar; but it is somewhat remarkable that the Chowal villages are enumerated separately.

The Koonbee Desaees.

Their power suppressed by the Mahrattas.

4. The Koonbees assert that when Kungawuttee was destroyed by the Moosulmans, all the rights and possessions of the Raja were conferred upon them, and that they enjoyed them for a long period. However this may be, it is certain that towards the decline of the Moosulman power they obtained so much influence as to be almost independent, and successfully resisted the attacks of the Bundaree, who governed Ahmedabad as the Deputy of Abhee Singh, Prince of Jhodpoor, from 1732 to 1736 A. D. But they became obnoxious to the Moosulman inhabitants of the town; and dissensions also arose among themselves, which prevented their offering any effectual resistance to the Mahrattas. They were plundered by Beelajee, and subdued by Damajee Gaekwar; and at the division of the Province between the Gaekwar and the Peshwa, Jhalawar, as a conquered District, was assigned to the latter. The Veerumgam was then for the first time made a regular Government Purgunna, and its accounts separated from from those of the other divisions of Jhalawar, which continued to be held by Rajpoot Chiefs, who were tributary, but retained their ancient character of feudal lords. The Desaees were deprived of all power, and had a Jagheer assigned them, but the head of the family, as Jagheerdar of Patree, persisted, so long as the country was in a disturbed and lawless state, in keeping up an irregular force, and acted his part as an independent Chief, sometimes ravaging and sometimes protecting the surrounding territory.

Veerumgam attached to the Ahmedabad Zilla.

5. Jhalawar, as a Peshwa possession, devolved to the Honorable Company in 1817, since which the Veerumgam Purgunna has been under the management of the Collector of Ahmedabad, and the tributary Chiefs under that of the Political Agent in Kattywar.

Boundary of the Purgunna.

6. The Veerumgam Purgunna is bounded to the North by the Puttun Purgunna; to the East by the Kurree Purgunna; to the South by the Dholka Purgunna; and to the West by the small tributary States of Jhalawar, and by the Runn. It comprehends in all 164 villages; but from this number must be deducted the Patree Jagheer of 14 villages, leaving 150 villages under the immediate management of the Veerumgam Kutcheree. These again are divided into the Dushkroee villages, 90, and the Chowal villages, 60, held by the Chowal Kolees. Of the Dushkroee villages 75 are Khalsa, or entirely and purely Government villages, with Tullatees attached to them; 9 are Kusbatee, or held upon the Talooka tenure by the Moosulmans of the kusba; 4 are Gametee, or held upon the same tenure by Rajpoots; and 2 are entirely alienated to private individuals. Perhaps these complicated divisions may be better understood from the following abstract:—

Number and denomination of the Villages.

Khalsa or Government villages	75
Kusbatee villages	9
Gametee villages	4
Alienated villages	2
Total Dushkroee villages	90
Chowal villages	60
Patree Jagheer	14
Total..	164

Incomplete state of the Survey.

7. The Survey of the Purgunna is at present very incomplete: the boundaries of the Kusbatee, the Gametee, and the alienated villages, have been surveyed, and a field measurement has been made of 50 of the Khalsa villages. All the Northern portion beyond Mandul remains in arrear, and the Chowal and the Patree Jagheer are untouched. Much, therefore, of the following information is the result of casual observation, intended to be matured by future inquiries, and not, as it may be wished it were, of a full and complete Survey.

Khalsa Villages.

8. The Khalsa villages of the Purgunna run up in a narrow strip, from the Northern boundary of the Dholka Purgunna to the Southern boundary of the Puttun: the line is often broken, and villages of various other Purgunnas are intermixed with them. There are three of them detached in the heart of the Chowal: one lies beyond Patree, upon the Runn, and one stands by itself among the Luktur and Bujana villages, to the South-west of Veerumgam; Oochurpee is 40 miles distant from the kusba, near Meysana, and Wasuna Leemree is not far from Dundooka. The best villages and most extended cultivation will be found among those near the Null, and called the Null Kante villages; the rest, as far as the Survey has yet proceeded, are, with scarcely an exception, pervaded by one general character, that of extreme poverty and depression. The villages are small and ill built, cultivation extends over but a few fields, while at the same time the range of waste land attached to each is very great.

Extent of Cultivated and Waste Land in 50 Khalsa Villages.

9. The extent of cultivation compared with that of the waste lands available for tillage, but in a neglected state, will be perceived from the following table, framed to show the result of the Survey measurements in 50 Khalsa villages which have been completed:—

	Acres.	r.	p.
Cultivated land	39233	1	28
Land arable, but neglected	109310	1	33
Unproductive land, incapable of tillage	11927	0	27
Total area....	160471	0	10

Average Revenue paid on the above Land.

The gross Revenue paid by these 50 villages is computed at 39,712 Rupees, from which, if charges amounting to 2,384 Rupees be deducted, there will remain 37,328 Rupees net Revenue. The average of both the gross and the net Revenue on each acre is consequently as follows:—

Average of gross Revenue. ..... Rs. 39,712

	Rs.	*q.*	*r.*	*£*	*s.*	*d.*
Per acre of cultivated land	1	0	4 or	0	2	3
„ „ arable land, cultivated and waste	0	1	6	0	0	6¾
„ „ land of every kind, arable or unproductive	0	0	98	0	0	6¾

Average of net Revenue ..... Rs. 37,328

	Rs.	*q.*	*r.*	*£*	*s.*	*d.*
Per acre of cultivated land	0	3	80 or	0	2	1½
„ „ arable land, cultivated and waste	0	1	0	0	0	6¾
„ „ land of every kind, arable or unproductive	0	0	93	0	0	6

Population.

10. The population of these 50 villages is found by the Survey census to be as follows:—

		Souls.
Armed, or Fighting Classes..	Moosulmans in general.....	3986
	Rajpoots	291
	Kolees	3767
Cultivating Classes.....	Koonbees	1793
	Narodas	849
	Sutwaras	649
Trading Classes.....	Buneeas	3556
	Brahmuns	1866
	Bhats	449
Village Traders, Carpenters, Blacksmiths, &c.		1986
Other occupations, Rubarees, Golas, &c.....		2258
Low Castes, Dhers, &c.		956
Slaves		199
Total Population... 12067 Males....10538 Females....		22605

The average of souls to a square mile is therefore 90½; but if the large town of Veerumgam be deducted, the average of the remaining villages will be only 42.

Alienated Lands.

11. The alienated lands in this Purgunna, so far as can be judged from the present extent of the Survey, are of greater amount than in the Puranteej, and sufficient to cause material detriment to the clear resources of Government; although not equal to the extent of private land in the Dholka and Dushkroee Purgunnas. The following is the sum total of land in the 50 villages which have been surveyed, set down by the Tullatees in their Registers as held by private individuals; it is not to be altogether depended on, as these Registers were gradually found to be very incorrect:—

	Nukra Acres.	Sulamee Acres.	Total Acres.
Ghureneea, or mortgaged land	653	279	932
Vechaneea, or sold land..	1327	60	1387
Pussaeta, or charity land	2633¾	93	2726
Chakreea, or service land	1043½	42	1086
Wanta, or Rajpoots' land	11220¾	2424	13644¾
Wuzeefa, or Moosulmans' land	136¼	....	136¼
Butamneea and Runwuteea, anomalous alienations	147	....	147
Total Alienated Land.. ..	17160¼	2898	20058¾
Total Government land by the Tulatees' estimates			30365
Unproductive land by ditto ditto			65858½
Total area by ditto ditto			116382¼

Kusbatee Villages.

12. The Kusbatee villages are all situated between the Null and the town of Veerumgam, with the exception of one, Charoree, which lies to the East, and adjoins the Dholka Purgunna. The Kusbatees have no ancient or prescriptive right to these villages: they were once a formidable body of men, and their power was at the highest, obtained generally, it must be admitted, by re-establishing or supporting all the finest villages of the Purgunna. These they continued to hold under the Peshwa Government: they were resumed when the Gaekwar farmed Guzerat, and again restored when the Peshwa resumed the direct management of his territories. Under the British Government they have been allowed to retain 9, which are treated as other Talooka villages, the Tullatees, and all direct interference with them being withdrawn. The total area of the Kusbatee villages is 39,716 acres, and the average Revenue paid to Government is Rupees 3,608; the total population resident in them amounts to 1,346 souls, of which Kolees compose the chief part. They are ill-cultivated, and altogether wretchedly mismanaged. The Kusbatees never reside in them, and are so deeply involved in debt as to be utterly unable, were they willing, to lay out money in improvements of any kind. These men are, in fact, completely in the hands of their Karbarees, their nominal servants but real masters; and, consequently, are rather to be pitied than blamed for the miserable condition into which their villages have fallen. Nevertheless, depressed as they are, no pension or pecuniary compensation can induce them voluntarily to resign their claims: they say, that were their right in the land once entirely relinquished, they would lose their rank as Zumeendars; and the poorest landed proprietor of other parts would thenceforward deem himself degraded by an alliance with them.

Gametee Villages.

13. The Gametee villages are detached from each other, and, excepting in one instance, from the other Dushkroee villages, among the Luktur villages, to the South-west of the kusba. These do not appear to have been originally attached to the Purgunna, but to have been spontaneously placed under the protection of the Veerumgam Kutcheree, when the authorities there were powerful, and able to curb the numberless petty chieftains to whose incursions single unprotected villages like these were so much exposed. They are somewhat better than the ordinary run of the Dushkroee villages, and their lands are well cultivated; the Rajpoots who hold them are Jhalas, and respectable men; they are all of them deeply involved in debt, but as they are resident among their own Rajpoots, this circumstance is not here,

as in the case of the Kusbatees, productive of oppression. In Tunmuneea is found a singular instance of an attempt on the part of the Grassias to introduce a division of the lands, and of the responsibility for the Revenue assessed upon them, similar to the Nurwa system of the Koonbees; but it does not appear to answer well, in consequence of dissensions among themselves. The total area of the Gour Gametee villages is 14,513 acres, and the average Revenue which they pay is rupees 1,494; the population amounts to 1,021 souls, of which Kolees and Rajpoots form the majority.

Alienated Villages.

14. The alienated villages are Khengareea and Suchana. Khengareea is situated to the Southward of Veerumgam, and is held by a Brahmun, on whose family it was bestowed by Damajee Gaekwar, prior to the Peshwa rule. Suchana lies to the East of the kusba, and is held by Bapoo Desaee, but quite independent of the Patree Jagheer. Both these villages are poor and ill cultivated, but they are at the same time highly improvable.

Chowal Villages.

15. The Chowal villages are situated in a body together, to the North-east of Veerumgam, and adjoining the Kuree Purgunna. They are held by Kolee Chiefs, and the origin of the term Chowal is "Chowalees," forty-four, the number of villages to which their possession originally extended. Over these villages Government exercises no direct controul; but a Native servant of the Kutcheree is annually deputed to make an estimate of the value of the crops on the ground of each village, from which the Collector computes the gross assessment to be levied upon it: two-thirds of this the Thakoor must make good and pay into the Government Treasury, and the other third is his own in virtue of his hereditary right. This is precisely the Talooka system, with the difference of one exact third, or 33⅓ per cent., being allowed to the Talookdar, in place of 30 per cent., as fixed in the Dholka Purgunna and elsewhere.

Chowal Talooks.

16. In the Chowal there are four separate Talooks, held by distinct Chiefs, as follows:—

The Bunkora Chief holds	.....	11	Villages.
The Chuneear „	.....	6	„
The Kookwao „	....	7	„
The Dekawara „	.....	11	„
Single villages „	.....	25	„
	Total....	60	

The Bunkora, Chuneear, Kookwao, and Dekawara Chiefs are distinguished by the term Detrozeeas, from Detroz, a Khalsa village in the heart of the Chowal, where Khanjee Rath, their common ancestor, first established himself. This is the origin of the Chowal Thakoors, and its date is fixed by the fact, which is very generally reported and believed, that the unfortunate Dara Shekoh was sheltered by Khanjee Rath for a few days when flying from his brother Aurungzebe, after the battle near Ajmere, A. D. 1659. All the Detrozeeas style themselves Solunkees, and boast to be the descendants of Solunkee Rajpoots. The Kookwao chief is the elder branch, but the Bunkora is the most powerful. The chiefs of some of the single villages are called Mukwanas, or the descendants of the Jhala Mukwana Rajpoots: they do not form a part of the original Chowal, but have been incorporated since.

Patree, or the Desaee's Jagheer.

17. The Jagheer which is now held by Wuktabhaee of Patree was first ceded to his great grandfather Udekurun, by Damajee Gaekwar, in Sumwut 1787, or A. D. 1731. The cession comprised primarily 20 villages, and the

entire Revenue of the Patree salt pans; but when Ahmedabad was taken by the Gaekwar and Ragonath Row in 1811 (A. D. 1755), Bhookandass, the full brother of Udekurun, intrigued with the Peshwa's Officers, and ultimately prevailed in getting the old sunud revoked, and a new one granted upon the following terms, viz :—Udekurun, as the senior branch of the family, to hold 11 villages, and three-fourths of the Revenue derived from the salt; Bhookundass, as the junior branch, to enjoy 2 villages; and the Moozmoodars under him to enjoy one. The Jagheer has not since been interfered with; but the condition at first attached to it, of keeping up 500 horse for the service of the State, was afterwards changed to a "Pesh Cush," or tribute of 12,000 Rupees every fifty months; and under the British Government the entire management of the salt has been resumed, a compensation of 12,000 Rupees per annum, subject to a slight deduction for the expenses of management, being made to the Desaee.

Character and circumstances of the present Desaee and Jagheerdar Wuktabhaee.

18. Udekurun was succeeded successively by Bhowsingh, Nuthoobhaee, and the present representative Wuktabhaee, who is a very intelligent and respectable old man, with a numerous family of sons and grandsons. He was formerly in the habit of keeping up a large fighting establishment, and in 1859 (A. D. 1803), after destroying Dussara, ventured to measure his force with that of Babajee, the well-known commander of the Gaekwar Cavalry, but he was of course quickly defeated, and obliged to make good a fine of one and a half lakh of Rupees. His affairs have consequently become inextricably involved, and he is continually pestered and annoyed by his creditors. With a view, probably, of ridding himself of these, as well as with the religious feelings often entertained by Hindoos advanced in years, he projected a pilgrimage to Mutra, and thence to Juggernat, there to end his days upon the spot of all the world he holds most sacred; but on the eve of his departure he was arrested and conveyed to Ahmedabad, where, when the Survey left the District, he remained in prison.

His possessions.

19. Wuktabhaee, in addition to the 11 villages of his Jagheer, holds also 5 villages near Patree, which he has purchased from the Thakoors of Dussara, and for which he pays an annual "Jummabundy" to the Political Agent in Kattywar. He possesses also a small village called Kurwasun, as his original "Wuttun," or patrimony, but he has no further right to this than that of very long possession. He made over a half share of it to the well-known Boput Singh of Bunkora, whose son and successor still enjoys it.

Desaee rights.

20. Bhookundass, the brother of Udekurun, was succeeded by Dialjee, Nursingdass, and Bapoo, the present incumbent. The active duties of the Desaeeship of the Purgunna have been given up to this branch of the family, but Wuktabhaee still enjoys a large share of the dues. Their rights as Desaees extend through all Jhalawar, but their claims, without the actual Purgunna of Veerumgam, have not been properly recognised since the accession of the British authority, although a settlement is expected to be made. They also hold the Desaeeship of the Dundooka Purgunna, which they obtained by purchase from the Borah in whom it was before vested.

Revenue of the Purgunna.

21. The annual net Revenue derived by Government from the Veerumgam Purgunna, exclusive of the Patree Jagheer, which pays a fixed tribute, between the years 1818 A. D., the first year of the Honorable Company's possession, and 1826, is stated in the Kutcheree records as below :—

Years.			Rastee Villages 75.	Kusbatee Villages 9.	Gametee Villages 4.	Chowal Villages 60.	Total Villages 148.
Sumwut,	or	A. D.	*Rupees.*	*Rupees.*	*Rupees.*	*Rupees.*	*Rupees.*
1874	„	1818	56171¼	5424	1684	4674	64053¼
1875	„	1819	54075	2994	1743	7807½	66619½
1876	„	1820	64160½	4749¾	1783	9883	80576¼
1877	„	1821	69670½	5420¼	1707	13562	90359¾
1878	„	1822	58171¾	6295½	1757	15673	81897¼
1879	„	1823	62004	6814½	1527	15760	86105½
1880	„	1824	68175¾	2062¾	1612	15887	87737½
1881	„	1825	19461¼	617	24½	7399	27501¾
1882	„	1826	78418	1996	1612	25779¼	107805¼

The average of the above net Revenue for 9 years is Rupees 76,961; the "Eejafut," or charges for the same period, have averaged Rupees 4,904, so that the annual gross Revenue may be taken at Rupees 81,865. The very small Revenue of 1825 is owing to the general scarcity which was everywhere felt in consequence of a want of rain during that season.

Charges on the gross Revenue.

22. The "Eejafut," or charges upon the gross Revenue of the Purgunna for the year 1882 Sumwut (A. D. 1826), consist of the following items:—

Desaees' fees	Rs.	61	0 0
Muzmoodars' fees		141	0 0
Tullatees' pay.....		2924	1 91
Wol to the Kolee Chiefs		1454	0 0
Compensation to Wunod Chief*		634	0 0
Total....		5214	1 91

Revenue of the Rastee or Khalsa Villages alone, and the Charges upon it.

23. The net Revenue of the Rastee villages alone, for the year 1882 (A. D. 1826), is Rs. 78,417-2-84; the charges upon the gross Revenue are in detail as follows:—

Eejafut, or fixed charges.

Desaees' fees.....	Rs.	28	2 0
Muzmoodars' fees		95	2 0
Tullatees' pay		2924	1 91
Wol to Kolee Chiefs.....		1188	0 0
Compensation to Wunod		634	0 0
Total....		4870	1 91

Independent of these charges, the following items are deducted from the "Azmaesh," or estimate of the produce before "Jumma" or annual Revenue is struck:—

Charges for paper, &c. used by the Tullatees.....Rs.		450	0 0
Mul Veera, or allowance for village expenses		2446	3 62
Payments to Patels and village servants.....		2652	3 24
Kothlee Sant, or annuities to the former proprietors of resumed lands.....		105	3 34
Dewustan, or charitable donations.....		854	2 85
Various small items		1450	0 60
Total....		7960	1 65

* This compensation is made on account of certain villages which formerly belonged to the Wunod Chief, but which have, under various circumstances, been transferred to the Veerumgam Kutcheree.

The "Nooksan," or loss upon the alienated lands, that is the difference between what is now paid by alienated land, and what would be paid were the same land not alienated, is estimated as follows:—

Loss and lands held by village servants	Rs.	6683	3	0
,, ,, ,,	Desaee		516	1	0
,, ,, ,,	Muzmoodar		96	0	0
,, ,, ,,	as Dewustun, or by temples and religious establishments.		913	1	0
,, ,, ,,	all other alienated lands		49978	3	43
	Total....		58188	0	43

General Abstract of the Revenue of the Khalsa Villages.

24. A general abstract, therefore, of the net and gross Revenue, and the total estimated value of the seventy-five Khalsa villages of the Purgunna, may be stated thus:—

Net Revenue to Government	Rs.	78417	2	84
Eejafut, or fixed charges		4870	1	91
Gross Revenue to Government		83288	0	75
Contingent charges		7960	1	65
Loss on alienated land		58188	0	43
Profit derived by farmers		685	2	16
Total value of the villages....		150122	0	99

25. The item of "Wol" in the above account is the only one requiring any explanation. Wol is the sum of money which the various Kolee and other freebooting Chiefs exacted from the villages as the price of protection or forbearance, and answers precisely to the black-mail of the Scottish highlanders. Under the British Government these Chiefs have not been denied their wol; but the amount claimed by each has been settled and fixed, and it is paid from the Government Treasury, in order that they may have no pretence whatever for sending agents, or otherwise interfering with the Ryuts in their villages. The Chiefs to whom wol is paid from the Veerumgam Kutcheree on account of Veerumgam villages are the following:—

A List of the Chiefs receiving Wol.

To the Thakoor of	Punna	(Chowal)	Rs.	957
,, ,,	Bunkora	,, ...		63
,, ,,	Chuneear	,, ...		116½
,, ,,	Ookurdee	,, ...		154
,, ,,	Buggapoora	,, ...		32½
,, ,,	Dabsur	,, ...		4
,, ,,	Reebree	,, ...		25
,, ,,	Sudatpoora	,, ...		18
,, ,,	Wunod (Moolkgeeree)			20
,, ,,	Cheetrora	(Puttun Purgunna).....		7
,, ,,	Peelodra	,, ...		10
,, ,,	Jagheer	,, ...		20
,, ,,	Dholee	,, ...		5
,, ,,	Choral	,, ...		10
,, ,,	Kutoosun (Kurree)			12
		Total....		1454

Claim of the Chowal Koolees to receive Wol from foreign Villages.

26. A consideration not unworthy of notice arises out of the above list. Many of the Chiefs to whom wol is paid by the British Government on account of British villages are the subjects of the foreign State. Now the Chowal Kolees have large claims under this head upon the villages of the

neighbouring Purgunnas, which belong to the territories of His Highness the Gaekwar; and it certainly seems to be but even justice that these claims of Chiefs who are British subjects upon the villages of a foreign State should also be recognised and allowed.

Assessment of the Khalsa Villages.

27. The principle of the mode of assessment in use throughout the Rastee villages of this Purgunna differs in no respect from that described in the Puranteej Report,* but the share of the produce assumed as the right of Government is generally higher, and the plough tax proportionately lower, than was found to be the case in that part. So that the assessment here is more completely that of the bagh butaee, and the risk of the season is more equally shared between the Ryut and Government.

Kulturs, or Estimates of Produce.

28. The amount of each man's produce is more commonly ascertained by "Kultur," or estimate of the crop in the fields, than by "Makhul," or actual weighing of the grain in the "Kullee," or yard, where the produce has been previously deposited. The kultur is not always an exact estimate; it is sometimes made with an allowance to the cultivator of one-fourth or one-half in every maund, or, in other words, 125 or 150 maunds are estimated, and assessed as only 100. When the allowance is one-fourth, the kultur is termed "Suwa"; when one-half "Dhora"; an exact estimate is called a "Kunekun Kultur," or grain for grain. The practice of making short kulturs is certainly a bad one, as it allows a latitude to the estimators, who are usually the Purgunna Desaees, and some Patels of character, which may be abused. It has been, in several instances, abolished, and might easily be so in all, for it is only necessary to alter the ratio in which the Government share is calculated, and the people cannot be sensible of the change.

The Government share.

29. The Government share of the ordinary produce of the Purgunna is usually considered to be one-third—rice commonly pays one-fourth share only; and it is a very general privilege enjoyed by the Patels, that the produce of their lands shall be rated lower, by one share, than those of ordinary cultivators. In stating the division of produce between Government and the Ryut, it is an invariable rule in Guzerat to call the Government share one, and that of the Ryut two, if the rate be one-third; three if one-fourth, and so on; and although the Ryut's share be calculated in halves and quarters, still the Government share remains as one: thus, what would be in English expressed as two-sevenths, the Natives call a three and a half division, or one share to Government and two and a half shares to the Ryut. This custom, if not known, may, in examining details of assessment, cause much confusion and misunderstanding.

Babtees, or small deductions and appropriations.

30. The "Babtees," or reductions and appropriations independent of the main division of the produce, were very numerous and complicated, but by a recent arrangement such of them as pertained to Government have been struck off, and their computed value added to the plough tax. Although this change has been made upon terms the most favorable for the people, still they are in a measure dissatisfied with it; because it increases that part of their annual assessment which is fixed independent of the contingencies of the season, and decreases that which is calculated upon, and varies according to the real produce of their lands. The fall of rain is here much more uncertain than about Puranteej, where the neighbourhood of the hills generally ensures a more than ordinary quantity. There are here no wells or springs, and no running streams, from which irrigation may be carried

*Viz. a certain share of the produce levied in kind, and a certain veeras, or money payment, on each plough.

on—no artificial resources, in short, but tanks, which can only be of use when the fall of rain is sufficient to fill them. It is obvious, therefore, that this country can never bear a beegotee, or fixed, commutation in money, for the Government share of the produce; and every approach towards it is looked upon with dread and apprehension by the Ryuts.

The Plough Tax.

31. The introduction of the plough tax, as a general Government impost, appears to be here of recent date. It originated the practice of the Patels levying a certain sum on each plough, each house, or each individual, in order to supply a fund for the contingent expenses of the village. For the defrayment of these expenses a specific sum is allotted, and the collection of the tax has been assumed by Government in many instances only within the last few years. The highest plough taxes among the villages yet surveyed are found in Dhakree, Dedeeasun, and Kaleeana, near the kusba, where each plough is rated at 20, 18, and 15 Rupees. In the Northern parts of the Purgunna it is usual to levy this tax by the "Puka Santhe," or plough with four bullocks; and in the Southern villages it is levied upon what is called the "Mundhun" system, which consists in each cultivator bearing a fixed rate, or being answerable for a certain number of ploughs, according to an agreement primarily made with him, and which rate is not to alter, however the number of ploughs actually in his possession may be increased or diminished. This appears to be a Kattywar custom, as it is scarcely known in other parts of Guzerat. In the kusba the following singular rule is laid down for estimating the rate of each cultivator's plough tax: a single man with a single bullock is rated as half a plough, and pays half the regulated tax of a whole plough; a single man with two bullocks counts as three quarters of a plough; a single man with three bullocks, or two men with two bullocks, count alike as one whole plough; and each additional man or bullock counts as an additional quarter of a plough.

Private Lands under certain circumstances assessed by a Sulamee on the Ploughs.

32. The Kolees and Rajpoots who hold private lands, and those also who act as village guards and watchmen, are very commonly permitted to cultivate whatever land they choose, subject to the payment of an "Oodhur Sulamee," or fixed sum upon each plough, and the same practice is often pursued with other village servants, in lieu of appropriating any particular lands as "Chakreea." In the latter instance the fields so cultivated still stand in the village registers as Government lands; each field being liable to change its occupant yearly, and always reverting to Government immediately the person allowed to cultivate on these terms leaves the village, or deserts his duty. This is an irregular mode of assessment, which answers well enough for a wild and waste country, but it must cease, or be modified, as population increases, and the ground becomes more fully occupied.

The Sayur, or Land Customs.

33. The "Sayur," or land customs of the Veerumgam Purgunna, have realized upon an average since the possession of the Honorable Company the annual net sum of Rupees 46,219; the charges upon the sayur during the same period have averaged Rupees 9,570, making up a gross annual collection of Rupees 55,789. The amount for each year is detailed below:—

Year.			Gross Collections.	Charges.	Net Revenue derived from the Land Customs.
Vikramjet, or		A. D.	*Rs.*	*Rs.*	*Rs.*
1874	„	1818	33697½	3504	30193½
1875	„	1819	40923½	9762¼	31161¼
1876	„	1820	51402	10432	40970
1877	„	1821	58554¾	10057¼	48497½
1878	„	1822	59479¾	9364½	50115¼
1879	„	1823	69537¾	9484½	60053¼
1880	„	1824	76988¾	12488¼	64500½
1881	„	1825	44378¼	9092½	35285¾
1882	„	1826	67138	11946	55192

In the above statement of the sayur is included the produce of the salt pans, of which, as they form a very remarkable feature of this country, some particulars are subjoined.

The Salt Pans.

34. The Veerumgam salt pans are situated at four different places, viz. at Patree, Oodoo, Futepoor, and Jhoonjhoowara. Those at Patree are within the Jagheer of the Desaee Wuktabhaee, and those at the other places within the Talook of the Kolee Chieftain of Jhoonjhoowara. They are all situated at the short distance of about a quarter of a mile within the outer extremity of the Runn.

Manufacture of the Salt.

35. The salt is manufactured in shallow beds, termed "Kaurdas," formed by a small embankment of about a foot high, and hollowed to the depth of about a foot below the level of the Runn: they are generally about 100 yards long by 15 yards broad, thus containing ½ or ¾ beega of land, equal to 48 or 70 perches. The wells from which the pans are filled with water are dug at the side to the depth of about 10 feet, the bottom being secured by a "Kuntwa," or rough frame of wood. The water is only a few feet from the ground, and it is therefore easily drawn up by means of a lever, without the aid of bullocks. The lever used is simply a pole hung upon a pivot at about a quarter of its length, with a heavy weight of stones attached to the longer end, and a rope with a small earthen pot to the shorter, over the well. The men stand upon a kind of frame within the well, and just above the water, so that they fill the pot, allow it to be drawn up, and empty it into the channel for its conveyance to the pans, with great despatch. The earthen pot is used in preference to the leathern bag, because the intense saltness of the water would cause the latter to stiffen and crack, so as in a few days to be wholly useless. The length of time necessary to complete the process of evaporation varies according to the season of the year: in the hot weather the salt is completely formed and ready for sale in 20 days, but in the cold season it is not ready in less than a full month. The pans are first filled at once to the depth of about four inches, and a little water is afterwards supplied daily to make up for the gradual evaporation. Every third day the whole is raked up with an instrument with iron teeth, called a "Duntalee," and when about two-thirds of the time necessary to complete the process has passed, the whole of the water is drawn off, and other water supplied. When the salt is ready, it is laid in heaps to dry, and during the dry season is allowed to remain in that state just as it lies until purchased and removed. At the approach of the monsoon it is collected in large conical mounds, the bottom parts of which are cased with earth and reeds, grass, &c. to protect them from the water, but the

tops are not covered in any way, soon hardening together, and becoming so compact and close as to throw off all the rain which falls upon them. A single bed is calculated to produce a thousand maunds in a month during the cold season, and more than two thousand maunds in the same space of time during the hot. The people who work at the pans are Kolees, who reside in the villages and cultivate fields during the monsoon. They are a diminutive, wretched class of beings, and uncommonly black, a complexion which they acquire by their constant exposure to the glaring heat of the Runn.

Nature of the Salt.

36. The salt forms in cubic crystals joined together in large lumps, called "Kankras," the best being that where the cubes are the largest and most regular. In old and disused wells the people often find perfect single cubes, which afford the mineralogist a beautiful and valuable specimen of crystalization. The superstitious Natives value them as a specific for the cure of sore eyes, to which their coldness may certainly be conducive; and they are therefore not willing always to produce, much less to part with them. The salt is uncommonly pure, and free from all the earthy particles which are said to unavoidably mix with bay salt formed by evaporating water on the surface of the ground. In the language of the country this salt which forms in kankras is termed "Wuragra," to distinguish it from the inferior kind manufactured at the sea side, which is termed "Guseea." The best salt is manufactured at Futehpoor, and the most inferior at Patree.

Exportation of the Salt.

37. The salt made here is exported to the neighbouring Purgunnas of Guzerat, and to Malwa, but not to Kattywar, to Mewar, or to Kutch. Through Guzerat it is conveyed in carts, but to Malwa it is conveyed only in what are called "Potees," that is packs on bullocks' backs, by the Brinjaries. There is a remarkable prejudice among the Natives against a traffic in salt: no respectable merchant will undertake it; and the trade is consequently monopolized by the Brinjaries. These men are not, as might be supposed, mere carriers in the employment of others, but are themselves the actual buyers and sellers of the salt they carry from place to place, upon their own resources, and at their own risk. They come in large bodies, under a leader, whom they term "Naek"; fill their packs at the pans, pay the required price and duties with ready money, and depart with the utmost order and regularity. They sometimes bring down wheat and other articles to sell in exchange, but often only empty packs. They seldom go beyond Oojein, Indore, and other towns in Malwa proper: the Northern parts of Hindoostan are supplied from the Samber Lake near Jeypoor, and the Bengal Provinces from the sea. There are many people of the class of potters, cotton-spinners, and others of that description, who bring jackasses and buffaloes laden with mowra, mango, or raen fruit, and other trifles, from the Kurree Purgunna, and take back salt from the pans. To this petty retail traffic the whole trade in salt is confined: no merchant ever embarks in it; and consequently there are no depôts or marts for its sale, other than the pans themselves.

Right and Property of Government in the Pans.

38. These pans are probably of very ancient date. There is no account of their first formation; neither does it appear when the sovereigns of the country first arrogated to themselves the exclusive property of them. The Moosulmans, however, exercised this right completely, and appointed a "Darogha," or Superintendent of them, an office which is still continued in the original family to whom the sunud was first granted. It also appears that the Moosulmans prevented, by strict orders, the formation of pans in any other spot than the established places, and the Mahrattas long

afterwards enforced the same rule by destroying some new pans near Degam. Within these few past years the Nuwab of Rhadunpoor has openly formed pans within his territories, where he sells salt at so cheap a rate as to draw off, inferior as his salt is, a very considerable portion of the trade. The Thakoor of Jhoonjhoowara, who formerly possessed great power in this tract of country, contributed mainly to support the Government right inviolate, as an inducement to which he was allowed a third share of the produce of the pans within his Talook. The Patree pans were included entirely in the first Jagheer grant made to the Desaee by Damajee Gaekwar; but when that cession was revoked, and the terms of the Jagheer altered by Rugoba, a fourth share of the produce of the pans was resumed for Government. Since the accession of the British authority, the share of the Thakoor and the Desaee has been commuted for a fixed annual allowance of 9,000 Rupees to the Thakoor, and 12,000 to the Desaee; the whole management and interest in the pans being taken into the hands of the Government Officers alone.

Sale of the Salt.

39. Little order or regularity was formerly observed in the sale of the salt. Carts were allowed to load as much as they pleased, at the payment of only 2 or 4 Rupees, and a few other trifling fees and cesses; but the potees were regularly taxed, precisely as they are at present. The consequence of this was, that it being much cheaper to take away salt in carts than in potees, the Brinjaries halted in some large town at a convenient distance, and there received their supply of salt from carts which brought it from the pans, to the material loss of the Government Revenue. A very simple remedy to this was immediately applied: all salt was ordered to be sold by weight, without any reference whatsoever to the mode of conveyance; the original tax upon potees was taken as the standard price, which proved to be 12¼ Rupees per 100 maunds, 4 seers per maund being allowed for wastage, the maund containing 40 seers, and each seer being the weight of 41 Sicca Rupees. The consequence of this arrangement, added to the greater security of the roads, has been to increase the number of potees loading salt from the pans, and decrease that of carts, very considerably.

Intricacy of the Accounts kept by the Native Superintendent.

There is still a good deal of intricacy in the method of assessing potees, and of confusion in the accounts kept of them; and there are a number of little items and perquisites taken by various different parties, which it would certainly be better to consolidate and commute for a fixed yearly payment. The following statement of the assessment of a "Tanda," or company of Brinjaries, is a nearly literal translate of the Guzeratee accounts kept in the documents of the Darogha; it will show at once the intricacy and confusion prevailing in the calculation as at present made :—

Translate, and specimen of the Duties paid by the Brinjaries.

A TANDA OF 100 POTEES, CARRYING 690 MAUNDS.

Patree Dues.

Net price of the salt					Rs.	40	0 1
Nuzerana, or fee to Desaee						0	1 0
To the Agreeas, or makers of the salt, about						19	1 0
Extra charges, viz :—							
Mukundewa, or fee to the Desaee's Karbaree	Rs.	2	2	0			
Tolnar, or fee to the weigher of the salt ..		1	2	0			
Sookree, or fee to the Desaee's son		0	2	0			
„ „ „ Patels		0	2	0			
Fees to the Agreeas' Karbaree		0	0	25		5	0 25
Total						64	2 25

Veerumgam Dues.

Duty on 100 potees.. ..	Rs.	25	0	0			
Extra duty, 10 per cent. on the above		2	2	0			
Exchange on above, at 1 pice per Rupee.. ..		0	2	29			
Extra charges, viz :—							
1¼ Rupee per 100 potees, and 10 per cent. over ..		1	1	50			
10 pice per ghur,* about..		0	2	50	2	0	0
					30	0	29
Deduct—							
Allowance of 2½ potees free for wastage, &c.. ..		0	2	75			
Surpâo, or drawback.. ..		1	0	0	1	2	75
					28	1	54
Add—							
Fees to the Kanoonga, or Superintendent ..					3	0	0
					31	1	54
Total payment	Rs.				95	3	79

There is some difference in the sums paid by the different castes of Brinjaries ; the above statement is for Gowars : the total payment made by Charuns would be Rs. 85-1-45, and by Lobanas, or any other caste, Rs. 93-0-83½.

40. The assessment of the same tanda at Jhoonjhoowara, Futehpoor, or Oodoo, would be made as follows :—

Jhoonjhoowara Dues.

Net price of the salt	Rs.	45	0	0
Drawback, at 4 reas per Rupee..		0	1	80
Remaining		44	2	20
Payment to the Agreeas, about		19	1	0
Tolnar..		1	2	0
Sookree to Agreeas		0	2	0

Veerumgam Dues.

As above		31	3	54
Total for Gowars..		97	0	74
Total for Charuns..		86	2	40
Total for Lobanas..		94	1	74½

It is necessary to explain that two payments were always made separately at the pans and at Veerumgam, until this year, when proper Officers were stationed at the pans to receive the whole together. The meaning of the two payments is plain : the one is the price of the salt, and the other the duty upon it ; but the keeping them distinct can now answer no purpose whatever. It was upon a calculation of the whole of the above that the price of salt was fixed at its present rate of 12¼ Rupees per 100 maunds,

* The tanda or company of Brinjaries is composed of a number of men, each possessing an unequal number of the cattle, 10 belonging to one man, 5 to another, and so on : the number held by one single man or family is called a ghur.

independent of the payment to the Agreeas. Out of the Veerumgam duty the Kanoonga, or Superintendent, is allowed 3¼ Rupees; but if the tanda consist of Charuns, he receives only 1 Rupee and 3 quarters.

Duty levied on Carts.

41. The carts which load salt from these pans pay to Government 12¼ Rupees per 100 maunds, with an allowance of 4 seers per maund to cover wastage. The additional charges are 3 Rupees to the Agreeas, and ¼ Rupee to the Tolnar, or person who weighs the salt out. The charges defrayed by Government out of the 12¼ Rupees are shown in the following statement:—

1 four bullock cart, carrying 100 maunds of salt from Patree, pays to Government Rs. 12-1-0; the charges on this are:—

	Rs.	*q.*	*r.*	*Rs.*	*q.*	*r.*
Kanoonga, or Superintendent's fees	0	1	58½			
Gosaeenjee, or fee to a Mundeer in Ahmedabad and in Veerumgam	0	0	17			
Mukundewa, or fee to the Desaee's Karbaree ..	0	0	8½			
Thakoordooar, or fee to a Mundeer in Patree..	0	0	8½			
Total Sookree, or Fees	0	1	92½			
Ujora, or payment to the Agreeas, at the rate of 40 reas per pair of bullocks extra to the above 3 Rs.	0	0	80			
Allowance for wastage, &c.	0	0	37½	0	3	10
Net to Government				11	1	90

In Jhoonjhoowara the above fees do not exist, the Government price being burthened only with the Kanoonga's fee.

Duty levied on Asses, &c.

42. Salt carried away upon the backs of asses ("Chalka"), or of buffaloes ("Para"), or on men's heads ("Sir baree"), comes under the same rules precisely as that carried in carts. The ordinary chalka load is reckoned at 3 maunds, and the para load at 6 maunds. A man can carry, perhaps, 1 maund.

Profit of the Manufacturers.

43. The Agreeas who manufacture the salt receive altogether 3 Rupees on every 100 maunds loaded in a cart, together with 40 reas on each pair of bullocks; a gross sum, not exceeding 19¼ Rupees, on every 100 potees; 8 reas on each chalka, and 12½ reas on each para. They calculate their receipts at about 12 reas per maund, and as 2 men can make upon an average from 1,500 to 2,000 maunds in a month, the employment appears to be very profitable. They are a kind of distinct caste, and admit no interlopers: a proposition made to them some time ago to receive the fixed monthly pay of 12 Rupees during the manufacturing season in lieu of their dues was refused by them.

Statement of the quantity of Salt sold, and the Revenue derived by Government therefrom, for 17 years.

44. The following statement shows the total quantity of salt sold at the whole of the pans together annually, for the last 17 years, and the Revenue derived by Government therefrom. The quantity given is by estimate only, until the year 1821, since which it has been regularly ascertained by actual weight:—

Years.	Total number of				Total Quantity of Salt sold.	Revenue derived by Government.		
	Potees, or Pack Cattle.	Carts.	Paras, or Buffaloes.	Chalkas, or Jackasses.		Gross Revenue.	Charges.	Net Revenue.
Sumwut, or A. D.					Maunds.	*Rs.*	*Rs.*	*Rs.*
1866 „ 1810	9299	5800	..	1264	475300	26249	5180	11069
1867 „ 1811	23212	5274	..	..	474847	19111	5211½	13900
1868 „ 1812	24041	9610	..	4337	800357	31076	7682	23294
1869 „ 1813	19341	2290	..	..	295996	77495½	2728½	74767
1870 „ 1814	33529	1585	..	305	233242	21606	2554¼	19051¾
1871 „ 1815	4668	4973	..	2333	429032	19770	4171½	15598½
1872 „ 1816	9354	5451	..	..	518224	17498	5209	12289
1873 „ 1817	12771	4888	..	1815	478422	15421	3826½	11594½
1874 „ 1818	15858	7983	..	1315	731269	26708	6144	20564
1875 „ 1819	16584	5805	..	2719	575892	21039	5003¼	16036
1876 „ 1820	47790	4964	..	435	594526	27310	5630¾	21679¼
1877 „ 1821	75905	2947	1376	2906	677990	37755	5336¾	32418¼
1878 „ 1822	65345	2440	3236	1448	537215	34480	5368	29112
1879 „ 1823	84645	2777	1693	413	650320	45305	6592¾	38712¼
1880 „ 1824	100631	1893	2504	1633	697386	44154	6681½	37473
1881 „ 1825	4498	1204	2199	7524	384330	25596	3690¾	21906
1882 „ 1826	74985	2847	643	8278	635873	47218	6510½	40708

It appears from the above that the average net Revenue derived by the British Government from salt pans since 1821 has been about 33,000 Rupees; and if from this be deducted the compensation made to the Desaee and the Jhoonjhoowara Chief, Rupees 21,000, the clear annual profit of Government is only about 12,000 Rupees.

Saltpetre.

45. Saltpetre is manufactured only in very small quantities, and that by Borahs who come for the purpose from Kurree, and use it in the manufacture of gunpowder. The Hindoos conceive that there is so much pap, or injury to life, in it, that they refuse to have anything to do with it. The earth from which it is obtained by a simple process is not that of the bed of the Runn, but dug in spots a short distance from its edge.

Face of the Country.

46. The whole of the Veerumgam Purgunna, with the exception of a few sandy rises in the North-eastern quarter of the Chowal, near the Kurree Purgunna, may be called a perfect level; but there is a gradual, though imperceptible, fall to the West and South, in the direction of the Null and the Runn. The aspect of the country is everywhere bare and bleak: upon the Eastern frontier there is some thick jungle, but this is soon exchanged for wide tracts of long dank grass, and then for extensive salt wastes nearly destitute of vegetation. There are no running streams of any consequence to carry off superfluous water; and this, added to the very low situation, so nearly on a level with the sea, must contribute to render the climate insalubrious to an European constitution. The Chowal to the North-east is higher than the neighbourhood of Veerumgam; it is better cultivated, and altogether the finest part of the Purgunna. To the South-west, on the contrary, perhaps no inhabited country can be much lower than the isthmus which divides the Runn from the Null: during heavy rain, it is entirely overflowed, so that the peninsula is converted into an island; and if the rain be very heavy and continued, the water of the Runn ultimately discharges itself into the Null, and thence flows off into the Gulf of Cambay. The Natives do not appear to be ordinarily subjected to any particular diseases; they suffer chiefly from famines; and the cholera has been felt here with peculiar violence. There is a very singular complaint known all along the Runn by the name of "Gant Rog," which is sometimes very

destructive, though providentially very rare. Rhadunpoor, a few years back, was nearly depopulated by it. It is described as a fever, accompanied by swellings in the armpits, breast, groin, and other parts of the body, exactly similar to the plague; but it is said to be always confined to some particular spot; and if the inhabitants fly, as they did from Rhadunpoor, although they carry the disease with them to distant places, and actually die there, they do not communicate it to other persons.

Soil.

47. The soil throughout the Purgunna is for the most part a black loam, but it is not so rich or productive as the same class of soil is found to be in other parts, in consequence of the very general impregnation of salt in a greater or less degree. Good limestone is found in many places, and used for making chunam; and in the direction of Patree there is a rotten kind of stone, called by the Natives "Kucha Puthur," which is much used in building. Good spring water is everywhere scarce, and the inhabitants are obliged to depend chiefly upon the tanks, which are filled during the monsoon; the consequence of which is, that famines are frequent, and severely felt when they occur.

Tillage.

48. In tilling the black soil, the common plough is never used, excepting when a waste field is for the first time broken up. The place of the plough is supplied by a large instrument called a "Ramp," which consists of a heavy bar of wood, with a broad blade of iron, slightly curved inwards: this is drawn by four stout bullocks, and completely cuts up and loosens all the surface of the ground, in which the seed is afterwards sown with the drill plough.

Implements of Husbandry.

49. The names of some of the agricultural implements in use here differ from those known in other parts of the Collectorate: the drill plough is here called "Wawuneea," elsewhere it is "Chawur"; the common plough is "Santee," elsewhere "Hull"; the harrow is "Kuleea," elsewhere "Ramp"; the smaller weeding harrow is "Dhoondee," elsewhere "Rampree"; the crooked knife for cutting hedges, &c. is "Duntal," elsewhere "Punjeta." The carts seen here are much better than those in use generally throughout the Ahmedabad Collectorate, but they are still inferior to those met with at Dundooka and in Kattywar, or to those which come down from the Northern and Eastern provinces.

Produce.

50. The chief articles of produce grown in the Veerumgam Purgunna are bajeree, jowar, rice, cotton, chaseea wheat, and some other minor crops. Of bajeree, the cultivators distinguish two kinds, the bajra or coarse, and the bajree or fine. There are no less than 10 kinds of jowar, viz. ghoramaee, ootowlee, chasutteea, malweea, kummulpoora, (these 5 only are known in Veerumgam,) dechuneea, rathureea, goobroo, (these 3 are known in the Churotur,) garabag, (grown about Puttun,) and patoo (a very fine kind, grown in Jhalawar). The seed of all these several kinds is distinct, and that of one will never produce a crop of the other. The rice crops prevail chiefly in the Southern villages bordering upon the Dholka Purgunna; they are all "Akaseea," or watered only from tanks, rice land watered from wells being almost unknown; but the fields are regularly formed into beds, and enclosed with "Pals," or banks. The best rice is grown in Jhamp, but it is far inferior to that grown in Wusaee, and the other rice villages of the Dholka and Dushkroee Purgunna. The people distinguish here only 3 kinds—dholee, kumod, and sathee.

Cotton.

51. The cotton of this country is grown in black soil, and also in the darker kinds of goraroo, but it is not found to thrive so well in the latter.

It is exactly similar in appearance to the cotton of Broach, and the mode of culture is the same; but the quantity of the produce is much inferior. It is plucked, pod and all, from the stalk, and not drawn out from the pod, as is done at Broach, and in this state it is generally sold by the cultivators, under the name of "Kala." The pod is taken off by the hand, and the seed is separated from the fibre by means of an instrument called a "Churkha," which consists of a wheel and a wooden roller, revolving against a round smooth rod of iron, between which the fibre is drawn, while the seed falls to the ground. The machine is about the size of a common spinning wheel, and does its work very simply and effectually. The people employed to pluck the cotton are termed "Dhoongra"; they are paid, not with money or food, but with a certain portion of the kala, which incites them to exertion in the fields.

Chasaee Wheat.

52. The chasaee wheat is not so much grown here as about Jhoonjhoowara and Rhadunpoor, which may be called a complete wheat country. The fields prior to the monsoon are levelled and dammed round, so that the water may flood and remain upon them, in which state they are left untouched until September and October, when the seed is sown. The Kolee Thakoors sometimes relate with great feeling the difficulties they encountered during their forays, when entangled among their fields.

Tobacco.

53. Very good tobacco is grown in small quantities in the Chowal, and it has lately been introduced with a prospect of success in the kusba. This plant was extensively cultivated formerly; but about a century ago, the Koonbees entered into a combination to discontinue its culture: the prejudice against it, however, appears to have now given way. A few fields of sugar-cane are seen near Veerumgam, in one particular spot where there is good water; but the cane is only sold as a sweetmeat in the bazar, and the quantity produced is not sufficient to render it worth the cultivators' while to manufacture sugar from it. The want of good water is an insuperable bar to the extension of this produce; but the growth of tobacco, for which brackish water is preferable, should be by every means fostered and encouraged.

Wild Roots which afford Food in years of Famine.

54. Among the spontaneous productions of the soil, there are some which, providentially, in seasons of famine,—so frequent and so severely felt here,—afford the means of a scanty subsistence to the suffering inhabitants. The most valuable of these is the reed, which grows in the Null, from the small bulbous root of which, called "Beer," a flour is made, of a nourishing but unwholesome quality. The roots of a fine kind of grass, called "Teg," and of another kind called "Kultee," which grow on the salt wastes, are used in the same manner; and, though less nourishing, they are more wholesome than the beer. The only tree of any value in such seasons is the small one called "Goonda," the berries of which are particularly prized: the best goondas grow on an island in the Runn, opposite Jhoonjhoowara, whence, in a scarce year, they are carried all over the country.

Pasturage.

55. Jhalawar was anciently peopled by a race of "Aheer," or shepherds, whose sole occupation was that of tending their flocks and herds; and to them are attributed the numerous fine and large tanks which form so prominent a feature of this country. There are still cowherds and graziers in nearly every village, and the breed of cattle is far superior to that of Southern Guzerat. The pasture is excellent, the slight impregnation of salt in the soil being rather favorable for it as grazing ground than otherwise; and, among a population which gave a demand for animal food,

or in a climate where sheep bore wool, Veerumgam would perhaps be more valuable as a pasture than as a grain country. But in India, the value of a herd of cattle consists only in the milk, and the ghee which is formed from it; and this value is so small as to render pasturage always an object of only secondary importance.

Cattle.

56. The Natives distinguish four castes of plough bullocks, viz. the "Kakrejee," the "Abdesee," the "Pancholoo," and the "Malinjara." The latter are inferior, and are those brought from the fair which is annually held at Malinjar, a place not marked in any map, but described as 175 koss distant from Veerumgam, and in the territory of the Marwar Prince. It is not a town or village, but merely the site of a temple and a tomb. There are two castes of buffaloes, the "Nagoree," brought from Nugur or Nowanugur, in Kattywar, which are the best, and the "Abdasee," from Aboo and Suroee. The finest herd of cows in the Veerumgam Purgunna is possessed by a Rubaree, named Urjun Mewara, who at present resides in the little village of Rukheeana, near Mandul; but he is in the habit of occasionally moving from place to place for the convenience of pasturage. He is a man of some property, and cannot be easily prevailed upon to part with any of his breed. The price of a superior cow varies from 30 to 50 Rupees. It is a common practice among the Bhurwars to burn down the grass every year, as the fresh crop is very sweet and pleasant to the cattle; but the consequence is, that in the event of a failure of rain, no forage can be procured, and great distress follows. It has therefore been prohibited by Government; but it is still done, and it is very difficult to distinguish between the accidental conflagrations which are so common, and those which are caused by design. A disease something similar to the "Mowas" frequently attacks the cattle, but though it injures, it is not very fatal to them—it is called the "Malvee Rog," being supposed to be brought down by the Brinjaries from Malwa. The "Seetlee," or cow-pox, is not so common here as in the Dholka and Puranteej Purgunnas.

57. Horses never appear to have been bred in this country: all the petty chiefs, and others who possessed studs, furnished them entirely from Kattywar.

Towns.

58. There are no less than three fortified towns within the limits of the Veerumgam Purgunna, viz. the kusba, Mandul, and Patree.

Veerumgam.

59. The town of Veerumgam stands within a few miles of the edge of the Runn, in the midst of an extensive bare plain. It is encompassed with a brick wall upon a stone foundation, flanked with the usual proportion of towers, and including a circumference of two miles and one furlong. In the North-east corner there is a small fortified enclosure, intended as a citadel, but the interior wall of the town itself forms two of its faces. The ruinous state of the wall having attracted the notice of Government, and it being considered advisable in this wild and often distracted country to preserve it in good order, the town taxes have, since the accession of the Company's rule, been allowed to accumulate as a fund for its repair, and the renovation of such parts as are most in decay is at present in progress. Upon the West side of the town, without the wall, there is a fine built tank, called the Monsoor Tulao, the erection of which is ascribed to the celebrated Solunkee Rajpoot Sandraj Jeysingh, the Prince of Putun. The workmanship is entirely of stone, and its circumference measures 220 yards; the North side is ruinous, but the others are in good repair: it is a fine tank, but not comparable with the Khakhra, or that at Surkhej.

Its Population and Trade.

60. Veerumgam contains a population of 12,000 souls, of which the cultivating classes are in number less than 2,000, while the trading classes amount to 3,500, and the armed or fighting classes to 5,000; at the present day it presents probably much the same appearance as it has always presented—that of an ordinary provincial town. It bears no marks of ruin or decay about it, and though it suffered most severely from the famine of A. D. 1813 (1869 Vikramajet), and still more so from the following pestilence, it does not appear to have been ever in a much more flourishing condition than it is now. It stands upon the high road between Marwar and Dholera Bunder, and what little trade it has is almost confined to the transit of goods between these places. Droves of camels, loaded with cloths, and returning with "Wusanoo," or dry goods, are continually passing: the principal mart for this trade is Beesulnugur, where there are many Marwaree merchants, whose dealings are very extensive, and who receive the Malwa and Marwar goods in their warehouses, and thence transport them to the sea coast. The transport of salt to the interior would be a very profitable commerce for a merchant of Veerumgam, but it has never yet been attempted. Cloth is manufactured at Veerumgam of a superior quality to the generality of Native cloth of this part, and it was formerly in great request; but the influx of European cloth has depressed the demand for it so much as to render it an article no longer of any consideration.

Imports and Exports.

61. It appears from the account of the customs received in the kusba of Veerumgam during the last 5 years, that upon an average the value of goods paying duty as imports has been 1,84,160 Rupees, and that of goods paying duty as exports 89,880. Grain is imported from all the surrounding Purgunnas, from Malwa and from the sea coast; some grain is also exported, but in a proportion greatly less than that imported, so that it appears this country cannot produce sufficient grain for its own support. From Dholera Bunder are received grain; wusanoo or dry goods; planks; Europe and other cloths; metal; sugar; cocoanuts; (these articles are exchanged for the ghee;) gol, or raw sugar; silks; and soorungee dye, brought down from Malwa and Marwar, and for the wusanoo or dry goods brought from Cutch. A good deal of cotton, the produce of the country around, is sent to the coast, together with wusanoo, ghee, soorungee, silks, &c. received from Malwa. The value of goods imported from Malwa in a single year appears, from the sayer accounts for the entire Purgunna, to be 1,37,969 Rupees, and the value of exports in return to be 89,846, including the salt, valued at 68,172 Rupees; the imports from Marwar are valued at 1,01,557 Rupees, and the exports at 1,14,879 Rupees; the imports from Cutch at 1,284 Rupees, and the exports at 3,786 Rupees. The Malwa and Mewar goods are principally brought down upon camels; those from Cutch are conveyed in carts of a peculiar construction.

Capitalists.

62. The chief capitalists of Veerumgam are the Bharots, the principal of whom, Bheema Wuktsingh, is said to be worth seven lakhs of Rupees. This man, in partnership with his two sons, has establishments in Bhownugur and at Drangadra, the Rajas of which places, as well as those of Leemree and Moorvee, are largely indebted to him, and the wanta lands of the village of Jolapoor have been mortgaged to him by the Raja of Drangadra. The Bharots are supposed to possess in all about 13 or 14 lakhs of Rupees: they traffic only in munotee and other money transactions, and in loans upon pledges as pawn-brokers. The Buneeas own a capital of between three and four lakhs, of which they employ about three quarters of a lakh in trade; and the Koonbees possess about 2½ lakhs, but the greater part of

this belongs to the Desaee family, who deal in munotee only ; the Desaee Bapoo is said to command a lakh himself.

Hoondees.

63. There are ten " Dookans," or shops, where hoondees may be procured upon the neighbouring towns of Guzerat, but only two where they can be obtained upon any place without the Province. Hureechund Mueechund can give a hoondee for 50,000 Rupees, and Damodhur Treekum for 20,000 : both these men have establishments also at Baroda, but reside here.

Decay of Trade.

64. The irregular manner in which the Mahrattas for a long period collected their Revenues, and the constant transfer of money from this to the Deccan, caused a very considerable traffic in hoondees, in which the merchants of Veerumgam largely embarked. They also followed the Moolkgeeree forces, and were profitably employed in many ways. These channels of commerce are now completely closed, and a great number of them have emigrated to Tasgaon and the Concan, where they appear, in common with those of Morassa, to have connexions. Some of them incurred a heavy loss by speculations in grain at the commencement of the scarce season of 1881 Sumwut (1825 A. D.), when they stored up grain, in hope of the price still rising ; but it fell rapidly, in consequence of importations from Malwa and the sea coast, and the speculators were deservedly punished for their conduct.

Mandul.

65. Mandul holds only the rank of a village in the Purgunna ; but it possesses a " Kot," or citadel, in pretty good repair ; and the remains of a wall, never it is said entirely completed, round the whole circuit of the houses. Internally it bears the appearance of little more than an ordinary village ; but there are a number of small stone mosques, and a very handsome temple lately erected by the Shrawuks : the inhabitants consist chiefly of Borahs and Buneeas, the former being the cultivators and Patels, while the latter are engaged in trade ; but they have little other business than the purchase of the kala, or uncleaned cotton, from the fields, and the transmittal of the rao, or cleaned cotton, to the bunder of Dholera and the sea coast.

Patree.

66. Patree exhibits the remains of a town, which has been strong up to a late period, and which with a little care might be rendered so again. In the Descriptive Index to the Map of the Country surveyed by the Surveyor General's Department in 1809-10, the late Lieutenant Colonel Williams thus describes the defences of Patree :—" The fortifications of Patree, which are uncommonly formidable for country works, consist of an outer and an inner wall, and a citadel, which they call Raj Kote. The first is of gravelly stone, the towers only built with cement. The second is well built, and in good repair. The citadel occupies the North-eastern corner of the town, and its walls are lofty and pucka built, commanding the North face, which would otherwise be the weakest part of the town. The walls of this citadel are sufficiently high to command every part of the interior of the town : in shape it is a square, with large towers at the angles, and smaller ones in the sides. Its East face is washed by the tank, and a ditch abut 40 feet wide and 20 deep runs round the other three sides, capable of being filled at pleasure from the tank at any season of the year. There is one entrance only, and that round the South-east tower, over a narrow bridge, and through a narrow gate. Wuktabhaee's residence within the Raj Kote is, moreover, a fortified house, and even over this rises a lofty octagonal tower, to be resorted to in the extremity. The distance between the outer and second walls is about 150 yards, and the houses which occupy this space may be reckoned the

poora, but the bazar and good buildings are within the fort. The South face of the outer wall is straight, 800 yards in length, and nearly obscured from view by a treble hedge of milk bush, with a deep narrow dry ditch between each. The form of the East face is adapted to that of a large tank. The West face is like the South, though perhaps not strong. When visited in the course of the Survey in 1827, the walls of the town were in many places very ruinous, and in all weak; they are built of the "Kucha Puthur," or rotten stone found in the neighbourhood, which speedily yields to the action of the atmosphere if not constantly repaired. The Raj Kote is built of the pucka stone brought from Drangadra, and is still perfect, with the exception of the tower, the upper part of which has decayed. From the top of this tower a fine view is obtained of the surrounding country: it is very small and confined, and certainly could afford the means of protection or defence only for a few hours. Patree is said to be the original "Path," or seat of Government, of the Drangadra Raja; and it does not exactly appear how it was first usurped by Veerumgam. It does not probably contain above 100 houses, inhabited by Kolees, Buneeas, and Koonbees, in nearly equal proportion. The houses are low and bad, and the town altogether is of a poor and insignificant order.

Defence of the Villages.

67. The villages are generally small, and destitute of any other defence than a slight hedge; but those towards the Null are surrounded with a low mud wall, and raised on mounds to avoid the inundations to which they are exposed. In some of the villages there are small round towers of brick, of stone, or of mud, open at the top, and pierced with loopholes for musketry or arrows: the practice of building these is borrowed from Kattywar, where they are very common, and they certainly afford a valuable means of protection and defence against a sudden attack. The Kolee villages of the Chowal were very strongly enfenced until the disturbances which took place in 1824 and 1825 rendered it necessary to cut away the thick hedges, and dismantle their defences. Of these villages, Punnar may be taken as a good specimen: the houses are detached from each other, and each compound is enclosed with a mud wall, about 6 or 7 feet high, with brambles at the top, and small loopholes at short intervals; beyond the houses there is a very thick hedge of the milk bush and prickly pear, mixed with thorny trees and plants of various kinds, and a deep ditch is drawn round the whole; there are properly only two entrances, by narrow winding roads, not sufficient for the passage of more than two men abreast; and there are many detached trees among the houses, kept as favourable positions for marksmen. This is a description of Punnar as it was when kept in state of complete defence—at present it is quite open and exposed; but even now, from the plan upon which it is built, it might, in the hands of resolute men, make a very formidable resistance. It was to the artificial strength of their villages alone that the Kolees owed their safety: there is certainly a jungle for a short distance round Punnar on the outer side of the ditch, but this is not the case with most of the other villages, and, generally speaking, the Chowal is a clear open country, quite destitute of any natural military strength. At Seehor, a Chowal village, there are the evident remains of an extensive town or city, the walls of which may be distinctly traced. Large bricks, much exceeding in size any made now, are found here; and heaps of bangles and ornaments of various kinds are very frequently dug up. The Natives suppose this place to have been suddenly overwhelmed by a "Duttal," or whirlwind of dust and sand, from the Runn; and ascribe the same fate to Kungawuttee, and to the old city of Puttun.

Inhabitants of the Country.

68. Among the population of this country, there is but a very small porportion of Moosulmans. The most remarkable tribe of this religion is

The Juts.

that of the Juts, who inhabit a tract of country called from them Jutwar; and are subject to a chief, whose residence is at Bujjana. They deduce their origin from Sind, and are intimately connected with the notorious Juts of Waraee, in Wuddeear. They are chiefly cultivators, but in disturbed times they are notorious for the daring and destructive character of their predatory excursions. They are strictly confederated together, and stand aloof from all the other warlike classes : they number in all 12 small vilages, one of which, Gedeea, has been transferred voluntarily to the Veerumgam Kutcheree, and is now classed as a Rastee village. The Juts are rather a fine race of men : they wear the long trowsers tightened at the ancle, which is the ordinary dress of all classes in Jhalawar ; and they have a Kazee of their own, who officiates at all their ceremonies.

The Sumejra.

69. In a few villages near the Null, there is found a sect of Moosulmans called Sumejra, who trace their origin also from Sind and the countries to the North-west : they are sometimes said to be the descendants of slaves whom the Juts brought with them at their first settlement here. The Sumejra are very small in number, and are all cultivators.

The Kusbatees.

70. The Kusbatees of Veerumgam have been already mentioned as the proprietors of certain villages. This body of Moosulmans amounts altogether to more than 400 souls; and they suppose their ancestors to have come originally from Hindoostan. They are divided into three " Dehelas," or divisions, each of which has a separate leader or headman. They do not cultivate, but support themselves by seeking employment as peons in the Kutcheree, and as guards to travellers and merchandize passing through. The " Wolawa," as it is called, or protection thus afforded, is paid for in proportion to the value of the property protected, and the number of men engaged. They are very faithful to their trust, and will fight desperately if attacked; but the increasing security of the country tends daily to decrease this source of employment. A body of the Kusbatees annually proceed to Kattywar, where they earn a livelihood by being sent as Mosuls from the Government authorities, to be paid and fed at the charge of a village or Chieftain. The very general employment of Mosuls renders this a more certain livelihood than might be supposed ; and they usually contrive to bring back sufficient to support them during the monsoon. As an armed body, the Kusbatees were once very formidable; but they are now perfectly contemptible as such, and cannot muster so much as one serviceable horse amongst them.

The Rajpoots and Kolees.

71. The Moosulmans may all be considered as belonging to the fighting class of the population, for they are all both able and willing to take up arms, when occasion offers ; but among the Hindoos there are only two tribes which consider the possession of arms as their proper birthright—the Rajpoots and the Kolees.

72. The Rajpoots of this Purgunna are few in number, consisting principally of the proprietors of the Gametee villages, and their dependants, who are Jhalas, the characteristic caste of Jhalawar. Of the Kolees there are two classes—the Tulubda, who are peaceable cultivators, and the sole inhabitants of many villages in the Southern parts of the Purgunna, and the Juhangreea, who inhabit the Chowal, and are better known as the Chowal Kolees. In the Chowal there is a distinction, which it is necessary particularly to notice : the Thakoors or Chiefs form a totally distinct class

from the common Kolees, who are kept in complete subjection to them, and with whom they never intermarry. The Thakoors are in number, as they themselves suppose, about 400, and they are all, or they pretend to be all, the descendants of real Rajpoots, who became accidentally deprived of their rights of caste, and degraded to Bheels. The greater part of them are the descendants of one Kanjee Rath, who held possession of Detroz. They are hence termed Detrozeeas ; but it is singular that this Detroz is a Government village, and was so considered through the whole of the Mahratta administration, and probably before it. It was deserted, or inhabited only by Bhats, and its lands were cultivated by the adjacent Chowal villages, until the accession of the British authority, since which it has been re-established with its original Patel, and it is now the finest Government village of the whole Purgunna.

The Chowal Thakoors.

73. The turbulent character of the Chowal Kolees is to be referred solely to the Thakoors, who are the directing and leading agents of the whole. The discipline which they preserve is very strict, and all their commands are performed with the greatest promptitude. In their forays, exact rules are laid down for the distribution of the plunder taken : all "Jeeta Looth," or live plunder, such as cattle, is the perquisite of the Thakoors alone; all coin belongs also to the Chiefs, but a small proportion of it is allowed to the man who actually captures it; all other articles—cloths, grain, &c.—belong to whoever may lay his hands upon them. If the raid consist of a number of horsemen belonging to different villages, the proposer or leader is entitled to a fourth share of the whole plunder collected, and the others divide the remainder equally between them ; the horsemen are always Thakoors, the common Kolees never being mounted. In attacking a village, the duty of the principal Thakoor is to guard the roads, while an inferior Thakoor leads on the main body of the Kolees to the assault, which is always made at night, and by surprise.

Arms of the Chowal Kolees.

74. The Kolees of the Chowal use chiefly the matchlock, the sword, and the spear; they do not practise much with the bow and arrow. When on guard at night they carry frequently a curved stick, called a "Kathur," which they throw with such force and steadiness of aim as effectually to maim and stop the retreat of any man they observe prowling about, if not more than 30 or 40 paces distant. The use of the kathur is better understood in Kakrej than here, and the Bheels of the Rajpeepla Hills are famous for the expert use of it : the children are seldom without one of these sticks, with which they early learn to strike down hares, and birds, when just in the act of rising. The shape of the kathur is exactly that of a very crooked sabre, without the handle, and they are made of the hardest and heaviest wood procurable.

Armour.

75. On important occasions, a certain number of the best warriors are selected, and clothed in a complete suit of chain armour ; and it is an established point of honour, that those so selected shall never show their backs to the enemy, or if they do, that they be scouted and degraded ever after. The armour is made of small iron rings linked together, with scales of iron or brass for the back, breast, and sides: it is in three pieces, the first of which fits the legs, and is fastened to the waist, the second covers all the body, and the third the head and face, leaving a very small aperture for the mouth and eyes; under the armour a very thick quilted cotton garment is always worn. The horse is always covered with a defence made of hide or of bamboo, which covers every part of him, hanging down on each

side like the flaps of a table, nearly to the ground, so that the rider cannot touch the horse's sides, and can command him only by the bit. The armour both of the man and of the horse is a secure defence against a spear, sword, or arrow, but it is useless against shot: its weight is so very great, that it could not be borne for any length of time together, but it is never put on until the enemy is in sight, or the battle close at hand; and in distant expeditions it is carried generally on camels. It seems doubtful if this armour could resist a spear carried against a man with the full force of a horse's speed, as lances were carried by the knights of Europe; but these men never carry it so—they always strike down merely with their own strength, and derive no assistance from their horses.

Peculiar habits.

76. The Thakoors in contracting marriages are always betrothed by proxy; and the bridegroom's sword, fancifully ornamented, is carried to the house of the bride. The favourite deity of all the Guzerat Bheels is Mahadeo, whose emblem, the ling, is to be seen at the entrance of nearly every Chowal village. The Kolees drink all kinds of spirituous liquors to excess; and of European spirits they are found to prefer gin to brandy, and, which is rather singular, hold cherry brandy in very low estimation. Some of them play chess, and they are all fond of cards: their pack consists of 96, or 8 suits of 12 each, and they know only one game upon them. They were attached to Mulhar Rao, the Jagheerdar of Kurree, and some of them were present in his engagement with Colonel Walker in 1802. They still speak in raptures of Mulhar Rao, and they are also very partial to Husunbhaee, the Kurree Borah who died lately. When any Kolee is accused of what is considered a crime against the community, the Thakoors assemble a rude court of judicature, and oblige the culprit to prove his innocence by an ordeal—either carrying a red-hot ball a certain distance, or lifting a hot iron bar as high as his head, without injury to the skin of his hands. If the culprit be supposed guilty he is expelled the village, this being now the only punishment within the Thakoor's power to inflict; but in former days they made no scruple of putting an offender to death. The Thakoors are exceedingly fond of horses, which they feed a good deal upon milk, keeping buffaloes on purpose for them. They invariably ride mares, and the prices which they give are sometimes extravagant, being so much as 2 or 3,000 Rupees. But they have little idea of the value of money: they have been so long accustomed to obtain it without labour, and spend it without thought, that some time must elapse before they become instilled with habits of even common prudence. They are all much involved in debt; and the suits which are filed against them in the Adalut are a source of great and constant annoyance to them. They are so careless, and so ignorant, that they never dream of regarding a summons which is sent to them in the form of a simple piece of paper, and they suffer the time to go by without a thought, until a decree passes against them. When, in consequence of these decrees, the villages of the Thakoors are attached, they are placed in charge of Adalut Mehetas, independent of the Kutcheree. These Mehetas are men upon low rates of pay, over whom, when at a distance from the Sudder station, there can be little effectual controul; and it would surely conduce to the welfare of all parties, without infringing upon the rights of any, if villages so circumstanced were placed under the charge of the Koomaveesdar.

Attachment of their Villages.

Cultivating Classes.

77. The cultivating class of the Purgunna consists of Koonbees, Sutwaras, and Narodas.

The Koonbees.

78. The Koonbees are found chiefly in the Chowal villages, where they live under the protection of the Thakoors, and apparently encouraged by

them, although, in any commotion, they are liable to be misused and dispersed. The Koonbees of Jhalawar are all of the Kurwa sect, whose principal place of worship is at Ojana, near Puttun. It is well known that in this sect marriages are celebrated only once in the course of 11 years. The day is not fixed, but on the approach of the prescribed year the names of several fortunate days in different months are written on slips of paper and thrown before the Mata, when a child is brought in and made to pick up one, which decides the marriage day for the whole caste. The Koonbees of Ojana do not themselves rank higher on account of their vicinity to the Mata, nor are they looked up to at all by the rest.

The Sutwaras.

79. The Sutwaras are an inferior tribe, something similar in their habits and pursuits to the Kacheea. They are most numerous in the town of Veerumgam, and cultivate a good deal of the ground about it. They are partial to gardening, and when they can procure small spots of ground fit for this purpose they do not attend to the ordinary kinds of field husbandry.

The Narodas.

80. The Narodas are half-caste Rajpoots, the descendants, as they suppose themselves, of the extensive establishment of slaves in the household and court of Sudrat Jey Singh, king of Puttun. They are all cultivators, and form the bulk of the cultivating population of the Khalsa villages. They derive their name from Nar, the yoke of a bullock; but they have at the same time something of the spirit of their Rajpoot ancestors, being always ready to defend themselves when attacked, and that with great spirit. The little village of Nuwagam near Mandul, and Ogan near the kusba, each succeeded in repelling the whole force of the Punnar Kolees, and obliged the assailants to retire with loss, although sheltered by no other defence than an ordinary hedge. The Narodas are, on this account, better suited to a wild country than the timid Koonbees, but they are certainly inferior as agriculturists. They dress and feed as Rajpoots exactly, and they have often the fine features of the Rajpoot countenance, but they are much looked down upon by the pure Rajpoots. They intermarry entirely among themselves, and they have lately come to a general resolution to disown the Charuns, and not to permit them any longer to be present, and to receive presents, at their marriages. They are not numerous, being found only in Rhadunpoor, where their principal men are, in Veerumgam, and in one or two small districts of Kattywar. Their names are the same as those of the Rajpoots, and the distinction of the "Uruk," or tribe, is also retained; but they can never take the "Jee," after their names, as every real Rajpoot invariably does.

The Chumars of Veerumgam.

81. The only particularity among the castes of people in this Purgunna worthy of notice is that of the Chumars, or leather dressers, of Veerumgam, who are considered as of the highest rank among their outcaste and degraded tribe, and enjoy certain privileges and fees in consequence on occasion of a marriage or other ceremony among them.

Peculiar Custom of inscribing Deeds on stones.

82. There is a peculiar custom in this country, which has not been observed in other parts of Guzerat—that of inscribing deeds of sale or free grant of land upon stones, which are afterwards deposited in the field, and remain as permanent title deeds from generation to generation. These stones are called "Ugat," and hence free land is often called "Ugateea." They are produced and cited as good evidence in questions relating to boundaries, but the inscriptions are usually found to be quite illegible: they always bear at top a representation of the sun and the moon, meaning that the deed is to have effect so long as those luminaries continue to shine. On the settlement

of any great question among a caste, it is a common practice to write the general agreement upon a stone, and deposit it in some conspicuous place: this was done some years since, when all the Koonbees combined in one general determination not to cultivate the tobacco plant; and again when the Narodas combined to exclude the Charuns from their marriage ceremonies. Stones placed as boundary marks are called "Kambha," and bear upon them a representation of a jackass or a hog, or sometimes both together; meaning that the man who removes it shall be kicked, if a Hindoo, by a jackass, and overthrown, if a Moosulman, by a hog.

Paleeas.

83. "Paleeas" are tombstones placed in memory of deceased persons; the custom is confined to those who have died a violent death, and exists no further East than the Western villages of the Dholka Purgunna. The paleeas are long narrow stones with a device and inscription, stating the date and purpose of erection, and always placed facing to the East. The device varies according to the caste of the person, and the manner of the death to be commemorated; but the most common is a rude figure of a warrior with a shield, and a sword, or a spear, or a bow, either on horseback, on the ground, or in a car drawn by bullocks;—the last might lead to the supposition that in ancient times it was usual to fight in such a manner, but there is no account or traditionary recollection of such having been the fact. The device for a "Suttee" is that of a female fore-arm, known by the bangles or ornaments, and with a sun or star in the centre of the open hand. A Bhurwar's or cowherd's paleea has always the representation of a camel; and a Rubaree's or grazier's the simple figure of a man unarmed. When the person has been of any consideration, a small building called a "Dera" is often erected over the paleea; it is generally of a massy and clumsy style of architecture, but sometimes prettily carved. The paleea should properly be placed on the exact spot stained with the sufferer's blood: but this cannot always be attended to; and on the outside of a large village, a long row is generally seen of these memorials of battle, murder, and sudden death. On the anniversary of the death the paleea should be smeared with "Sindoo," or sandalwood powder, and have adoration paid to it. But this is becoming obsolete; and for the old paleeas no reverence whatever is retained, the people immediately and without scruple consenting to remove them wherever they may be required.

The Kaira Currency in Veerumgam.

84. The Rupee current throughout the Veerumgam Purgunna in the time of the Mahrattas was the "Jeena," or smaller Kaira Rupee; but after the establishment of the British rule, the Ahmedabad Sicca became the legal coin, and was alone received at the Government Treasury. The circulation of the Kaira Rupee was subsequently confined to the towns of Veerumgam and Mandul; and the monied classes established a system of gambling with them which was found in its effects to be very injurious to the poorer classes. The Nanawuttees were therefore assembled in 1826, and they signed a "Moochulka," or penalty bond, binding themselves not to circulate or transact business in the Kaira currency after the lapse of six months from that date, the interval being allowed to make up and balance their outstanding accounts.

Its origin and effects.

85. The Kaira Rupees were coined at Kaira in the time of Peelajee Gaekwar, and passed current for a long time in the towns of Nureead, Moonda, and other places in the Churotur; but they are now, it is supposed, confined to Veerumgam. The intrinsic value is six and a fraction inferior to that of the Ahmedabad Sicca; but the relative value of the coins in Veerumgam fluctuated, according to the scarcity or abundance of the Kaira

Rupees in the market, from two annas in the Rupee to one anna, or from 12½ to 6¼ per cent.; and in time bargains upon account were made, and speculations entered into, exactly sumilar to the stock transactions of Europe. But this fluctuation had no effect whatever upon prices, which were always calculated in the Kaira Rupee, and though there were nominally two prices, yet the fixed price was named in the Kaira Rupee, the value of which was variable, and the variable price was named in the Sicca Rupee, the value of which was fixed. If the price of grain were called 2 Rupees per maund, a seller received 2 Kaira Rupees, whether these were equal to 1 Sicca Rupee and 14 annas, or to 1 Rupee and 12 annas only. The effect of this was clearly injurious to the Ryuts, who brought their grain for sale in the town, and were obliged upon the instant to change the Kaira Rupees, which they received in payment, for Siccas—either to pay into the treasury or to carry to their homes, at an uncertain rate, more or less favourable, as might happen. There was also an uncertainty in the transactions of all petty traders and manufacturers, which could not but be hurtful, and much general good has undoubtedly been produced by the late prohibition. The only sufferers are the capitalists who made the spirit of gambling which the Kaira currency engendered a fruitful source of profit, by taking advantage of the turns of the exchange, which their own operations, in alternately buying up the Rupees and throwing them again into circulation, mainly influenced. The Saowlee Rupees are current at Patree in an exactly similar manner to the Kaira Rupees of Veerumgam.

Pice.

86. The pice in use here are in some parts those of Kattywar and the petty States of Jhalawar, which are generally much smaller than those of Ahmedabad. The value of the pice, that is the number of them exchanged for a Rupee, fluctuates much, as they are often exported in great quantities to Marwar as brass, and they are consequently scarce or plentiful, according to the greater or less profit derived from this branch of trade.

Measures used in place of Weights.

87. In some of the South-western villages of Veerumgam the custom is preserved which is common to all Dundooka, Gogah, and probably the greater part of Kattywar—that of selling grain by measure instead of by weight. The measures used are termed Manoo, Palee, and Powala, and the size of each is as below:—

1 Powala	=	⅝ of an Ahmedabad Seer.					
4 Powalas	=	1 Palee	=	2½ Seers.			
4 Palees	=	1 Manoo	=	10 Seers.			
4 Manoos	=	1 Maund	=	40 Seers.			

The following is the result of a careful comparison between these measures and the Veerumgam bazar weights; the nature of the grain of course causes a difference in the comparative weight:—

	Manoo.	Palee.	Powala.
Jowar	10⅜ Seers.	2 5/16 Seers.	0⅝ Seers.
Bajree	10 „	2½ „	0⅝ „
Rice	8 „	2 „	0½ „
Mug	9¾ „	2 7/16 „	0⅝ „
Wheat	10½ „	2½ „	0⅝ „
Barley	8¼ „	2 1/16 „	0½ „
Buntee	6¾ „	1⅝ „	0 31/64 „
Tul	8 „	2 „	0½ „

The measures are made of wood, with a bottom of iron, studded with brass knobs, and bearing the stamp of different Rajas.

Land Measure in the Villages to the North of Veerumgam.

88. In the villages North of Veerumgam, the " Beega" is not generally known as a measure of land, and where it is known, it is more commonly the kucha beega of 10 wussas, than the pucka beega of 20 wussas. In lieu of the beega, land is measured by the " Oleea" and the " Purajoowa." The oleea is considered to be 50 double paces in breadth, by 100 in length ; it takes 5 maunds of seed to sow it with wheat, and it is equal to 10 kucha beegas. Three oleeas make one purajoowa. Taking the double pace to be 60 inches, or 5 feet, the oleea will be found to contain 1,25,000 square feet, or something less than 5 standard beegas.

P. M. MELVILL, Lieutenant,
7th Regiment N. I.

Office of the Ahmedabad Survey, 31*st October* 1827.

REPORT

ON THE

PORTION OF THE DUSKROEE PURGUNNA SITUTAED IN THE AHMEDABAD COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Situation, Boundary, and Extent.

THE portion of the Ahmedabad Collectorate included under the denomination of the Duskroee Purgunna is situated immediately around the city of Ahmedabad itself, and comprehends a tract of country in length from North to South 33½ miles, and varying in breadth from 3 to 18 miles. It is bounded on the North by the Kurree and Dehegam Purgunnas, belonging to the Gaekwar, on the East and South by the Kaira Zilla, and on the West partly by the Dholka and partly by the Kurree Purgunna. The name Duskroee is asserted to have originated from the limits of the Purgunna anciently extending ten koss (Duskroh) in every direction from the capital; but the dimensions of the present day are far from conforming to such a definition, and the breadth has recently been much contracted by the loss of 33 villages, which, as situated Eastward of the Kharee river, were transfered to the Kaira Zilla when that stream was adopted as the boundary of the two Collectorates.

Number of Villages, and superficial contents.

2. The Purgunna, as it now exists under Ahmedabad, is composed of 144 of the original Duskroee villages, and 2 of the Alena Purgunna, which, as situated West of the Kharee, have been in turn transferred to it from the Kaira Collectorate. These, together with the city and its 3 pooras,—Suruspoora, Goomteepoor, and Rajpoor,—which occupy ground exclusively their own, are in superficial contents as follows:—

British statute square miles	344¾		
		r.	p.
British statute acres	220577	2	10
		w.	ww.
Beegas of the standard North of the Muhee	375326	10	16

Distribution and relative size of the Villages.

3. Within the body of the Purgunna there are two insulated villages of the Dehegam Purgunna, Nubhoee and Runasun, which are excluded from the above computation. Of 146 villages at present constituting the Purgunna, 6 are held as Wuzeefa, and 5 as Enam; of the remaining 135

Tulput, or Government villages, 117 possess resident inhabitants, and 18 are unoccupied, but the lands of the latter are thoroughly cultivated by people of the neighbouring villages. The village of Butwa, though originally a Wuzeefa village, is included with the Government; as at the period of the Survey it was under the direct management of the Collector, and paid a fluctuating jummabundee, levied by beegotee, and collected by a Tullatee, in a similar manner to any other Government village. The largest inhabited village in the Purgunna, both in extent of land and Revenue, is Bareja: its area is beegas 8,688 5w. 9ww., or acres 5,106 0r. 8p., and it pays to Government in good seasons usually about 22,000 Rupees. The inhabited village of least extent is Futehpoor, in area beegas 101 16w. 17ww., or acres 59 3r. 16p., and paying about 400 Rupees. The extremes, though great, are remarkable, more for the small size of Futehpoor than the magnitude of Bareja. Considering the extent of the Purgunna, the villages are in general of an average and convenient size, a feature that will generally mark a country like this, where unprofitable waste, beyond what is necessarily occupied by the beds of rivers, sites of towns and villages, roads, &c. is rarely met with. There are two villages besides Bareja which pay a Revenue exceeding 10,000 Rupees, and seven paying from that to 5,000. The deserted villages are chiefly small spaces around the city, which in the time of the Moosulmans were suburbs and gardens, and many entirely at that time occupied by houses are now cultivated, and only remarkable from the mausoleums, tombs, and buildings of a durable nature which are scattered about them. Four villages are detached from the main body of the Pûrgunna, viz. Sehebazpoor, separated by a single village only from Leelapoor at the North-west corner,* and Sanoda (late of the Alena Purgunna), situated 10 miles North-east of Vulad. The total area of the 135 tulput or Government assessable villages is beegas 342,767 4w. 6ww., or acres 201,442 2r. 18p., of which beegas 52,177 11w. 2ww., or acres 30,664 1r. 38p. fall under the general denomination of unproductive land; leaving beegas 290,589 13w. 4ww., or acres 170,778 0r. 19p., as the arable or productive area.

Productive and unproductive Area of the Tulput Villages.

General divisions of Soil.

4. In a tract of country extending over so many miles the soil and general features of the land must necessarily undergo change, though the variation in this Purgunna is not very marked. The "Goraroo," or whitish sandy soil, is the main characteristic; and deviation from this occurs only in the lowest parts, and in hollows which seem to approach towards the black loam; and along the course of the Saburmuttee river, where the alluvial or "Bhata" land is frequently met with. The soil, by established usage, is classed under the following principal heads, and these, again, are subdivided according to quality into "Uwul," the first, "Doyum," the medium, and "Soyum," the inferior.

The Goraroo.

Goraroo is land of light colour, varying from almost mere sand to soil of the richest quality; and its fertility depends on proper culture and abundant manuring. Water is generally found good in it, and, when tolerably near the surface, will insure to industry and an adequate outlay of capital large returns of the best descriptions of produce. It resembles somewhat in its appearance the "Maroowa" or "Gorat" land, for which the Jumboosur Purgunna is celebrated, but falls far short of it in natural richness from the absence of the fine clay and mould which form so large a proportion of that

* Eendrora and Dhola-Kooa, on the West side of the Saburmuttee, cut off from Raesun by the intervening Gaekwar village of Radesun.

productive soil. But that the goraroo is susceptible of the greatest improvement by artificial means is remarkably exemplified by the superior condition of the fields in the immediate vicinity of almost every town or village, as compared with those distantly situated on the boundaries, that cannot be properly attended to, and seldom receive any share of the scanty store of village manure. The "Goraroo Kowetur" is the irrigated, either from wells, rivers, or tanks; the "Goraroo Oobereea" or "Pandhur" is the dry, the latter ("Pandhur") being the poorest degree.

Kaurda.

"Kaurda," or "Kada," or "Keearee," though classed as a soil, is more properly the prepared bed in which rice is grown, whether with or without artificial irrigation, "Kanda Koowetur" implying the former, and "Kanda Ukaseea" the latter. The soil on which these beds are formed is usually the "Besur," or medium soil between "Goraroo" and "Kalee Bhoeen"; and the converting ordinary land into kaurda is generally most expensive, from the necessity of excavating the beds until a firm and retentive soil is obtained.

Kalee.

"Kalee" or black land, forms so small a portion of the Duskroee Purgunna that it is customary to include it with the kaurda, with which, also, it assimilates almost exactly in produce.

Bhata.

"Bhata," or alluvial land, is chiefly formed by changes in the course of the Saburmuttee river, when the soil washed away from the banks has accumulated on the sides of its spreading and irregular bed. Low tracts on the banks of the river annually overflowed by the freshes also partake of this rich soil, but are liable to be spoilt by the deposit of sand in place of mud. The bhata is of the goraroo class of soil, containing, however, a large portion of mould, and, from its lowness of situation, being at all times under the influence of moisture, is very productive, and favourable for all the more valuable varieties of agricultural produce.

Proportion of Arable Land under each description in the Tulput Villages.

The proportion of arable land in the Government villages falling under each of the above descriptions of soil is as follows:—

	Beegas.	w.	ww.		Acres.	r.	p.
Goraroo	229,596	12	4,	or	134,932	3	15
Kaurda and Kalee....	49,520	17	13	„	29,103	0	25
Bhata	11,472	3	7	„	6,742	0	19
Productive area.....	290,589	13	4	„	170,778	0	19

Classification of the Villages.

5. Between the Saburmuttee and Kharee rivers (including Sanoda, detached within the Dehegam Purgunna,) there are 81 of the present Duskroee villages, and these may be classed under two principal divisions as to soil and productions. The goraroo villages may be included between Vulad on the North frontier of the Purgunna, and Butwa in a Southerly direction, with a line passing East from it to Hutheejun and Weanch, and West to Kumor: these, excepting 5 or 6, situated on the bank of the Saburmuttee, between Vulad and the Shahee Bagh, which partake of a more sandy quality, and are injured by ravines, embrace a tract of exceeding fine soil, capable of the highest improvement from manure and irrigation.

The Goraroo East of the Saburmuttee.

The Rice.

6. The richest villages of the Purgunna are the rice, under which denomination may be included all South of the above line, comprehending likewise the 5 Dholka villages situated East of the Saburmuttee; some few villages also to the North of Butwa, particularly Ramol, Wustral, and Orub, cultivate rice extensively, and as their means of irrigation increase, it is likely to be still more generally introduced as a khurreef crop. The soil in this tract is composed of the kalee, kanda, and goraroo

intermixed, and four of the rice villages, Nuwagam, Chunendra, Peengluj, and Cheetrasur, are irrigated from the Kharee river, the water of which is made to flood them by means of bunds; but the supply is very precarious, depending in the first place on the monsoon rain being abundant, and also on the villages higher up not diverting so much of the water to their own lands as to prevent a sufficient quantity from passing down. Bareja, Jetulpoor, and the remainder of the rice villages, are likewise dependent on the fall of rain, but any trivial scantiness is supplied by artificial irrigation from the wells: in these also they possess the further resource that, should the rice fail, they have the means of bringing forward fine after crops of wheat and barley, with the certainty of ample profit. A few of these villages are partially irrigated from tanks, and their increase and improvement is worthy of attention, particularly in situations where well water is difficult to be obtained, or may prove bad.

The Bhata.

7. The Bhata villages are situated in a direction South-west of the city, along the low irregular bank of the river extending from Kochrub to Kasundra; but the portion of this rich soil falling to each is inconsiderable, except the very fine villages Veesulpoor and Kasundra.

The Goraroo West of the Saburmuttee.

8. To the Westward of the Saburmuttee river there are 65 villages, in which the predominant soil is goraroo, of rather a poor description, from want of proper tillage and a sufficient supply of manure. In several of these, situated in a North-west direction from the city, a vein of kalee, or at least partially black, land extends from 3 to 8 miles, and is chiefly appropriated to the production of grass under the term "Beer," the greater portion of which might be turned to more profitable account as rice ground were the circumstances of the people improved so much as to admit of the requisite outlay of capital for their formation; but this can hardly be looked for at an early period, as these are amongst the poorest villages of the Purgunna.

Those around Ahmedabad;

9. Immediately around Ahmedabad the soil, though not naturally of a superior description, is by the aid of irrigation, and the facility of obtaining plenty of manure, exceedingly productive, and it is very profitably laid out in the growth of vegetables, for the disposal of which this populous city at all times presents a certain market. The fields here are enclosed with live hedges of milk bush, as far Eastward as the villages of Bhagphurdos and Rukheeal, where fine groves of mango, raen, and mowra trees commence, and extend in a Southerly direction towards Butwa, and Northerly through Syudpoor and Nurora. Between Vulad and Weanch, along the course of the Kharee river, are some well-peopled villages, of very productive soil, thickly planted with fine fruit trees. These villages have never derived any advantage in agriculture from the Kharee river, but their prosperity, in a great degree, may be ascribed to the former growth of indigo, for which several of them were celebrated at the period when its cultivation was profitably carried on through many parts of the province; and, indeed, its revival in consequence of the late very great increase in price has taken place in several since the Honorable Company's possession of the Purgunna.

And on the Kharee between Vulad and Weanch.

Face of the Country.

10. The face of the country is generally level, but to the Eastward of the city, midway between the two rivers, are a few small hills or rises, and immediately South of it also there are others, extending along the left bank of the Saburmuttee, and terminating at the detached villages of the Dholka Purgunna. These are clothed with fine leem trees scattered over their cultivated surface, and give a beautiful and diversified appearance to the country.

To the Southward of these rises, extending chiefly through the Dholka villages, is a tract strongly impregnated with salt, to the great detriment, and sometimes to the total ruin, of its productiveness: this impregnation has greatly increased within the last 8 or 10 years, being ascribed by some to the earthquake of 1819, which certainly had the effect of turning numerous wells salt, and by others to the many successive years of heavy rain which preceded the two last. From the sandy and light nature of the soil, the roads are often heavy in the dry season, but the rapidity with which moisture is absorbed renders them always passable during the heaviest monsoon. The river is generally forded on the Northern road at the Shahee Bagh, and towards Dholka and Kattywar at Muwapoora and Surora: the deep bed of sand to be traversed at both these places renders the passage laborious for heavily laden carts.

Roads.

11. The buildings and remains of the Moosulmans scattered throughout this Purgunna, and particularly in the immediate neighbourhood of the walls of Ahmedabad, are numerous, and many of them display a tasty and highly finished style of architecture. The Kakreea Talao, perhaps the largest and finest tank in Guzerat, is situated three-quarters of a mile South-west of the city gate, and is said to have been built by Kootbe-Deen, the third Sooltan of Ahmedabad. It is constructed of stone, of a circular shape, and includes an area of 72 British statute acres. In the centre is the ruin of a summer house, joined to the side by an arched bridge, now in a state of complete decay, but the tank itself is in excellent preservation, requiring much, however, to be cleared and deepened. The Mulik Saban Talao is less known, being situated in an unfrequented spot $2\frac{1}{4}$ miles Eastward of the city, just beyond the village of Rukheeal. It is built of stone, of an octagon shape, including a measured area of 35 acres, and in good preservation, retaining its water throughout the season if the ordinary quantity of rain have fallen during the monsoon. The celebrated mosques and tank at Surkhej were built by Gunj Buksh, a Fukeer, about the same period as Ahmedabad itself. They are situated about $1\frac{1}{2}$ mile from the present stream of the river, but immediately above its original bed, which is now under cultivation. The principal "Roza" is a heavy building, with a large white dome, and contains the remains of Gunj Buksh himself; opposite is a small but particularly neat and chaste mausoleum, containing the tombs of Mahood Begra, his brothers, and his wives, which has been added at a subsequent period to the others, and encroaches upon and destroys the uniform figure of the tank. The "Durga" or place of prayer is remarkable for its great size, covering more than one acre of ground: the whole space included by the various buildings measures $3\frac{3}{4}$ acres, and the tank, which is a very fine and perfect one, of an oblong shape, and built of stone, $17\frac{1}{2}$ acres. Upon the Southern and Western bank of the tank there are some very handsome terraces, and the remains of a palace, said to have been built by Ahmed, the founder of Ahmedabad, for the convenience of his seraglio, and in the exact centre is a small brick ruin, supposed to have been a fountain. The neighbourhood is thickly studded with mosques and old buildings of various kinds; and a little to the Southward is a small ugly whitewashed roza, which, as the burial place of Bawa Ullee Ser, is held in greater veneration than the more magnificent structures of Gunj Buksh. The roza of Shah Alum stands at the distance of $1\frac{1}{4}$ mile to the Southward of the city, on the Kaira road. It is enclosed by a brick wall much in decay, and, together with the subordinate buildings attached to it, covers 53 acres of ground. The roza itself is remarkable for its handsome minarets, which were much shaken by the earthquake of 1819, and are in a dangerous state. At Butwa

Remarkable places and Buildings.

The Kakreea Tank.

The Mulik Saban Tank.

The Roza of Shah Alum.

The Roza at Butwa.

there is a built tank, and a celebrated roza, containing the tomb of Kootba Alum, the father of Shah Alum. The building, though much dilapidated, is remarkable for the elegance of its structure, and the dome is of such a size as to be a conspicuous object to the country around.

The Peerana Temples.

The Peerana temples are a cluster of rozas, not remarkable for their workmanship or beauty, surrounded by a strong wall. The establishment is supposed to have been founded in the time of Mahomed Begra, about four centuries ago, and, with the houses of the Momuns and disciples, forms a respectable little village : it is situated on a rising ground, and the scenery in the neighbourhood, from the woody and undulating character of the country, is very beautiful. The Syuds are supported by voluntary contributions, collected by the " Moreeds" or disciples in various parts of the country, and amounting on an average to 10 or 15,000 Rupees per annum : of this sum, about 4,000 are divided among themselves, and the rest distributed in alms, and daily food afforded to all travellers and others that demand it. The houses and machines for preparing and cooking the quantity of grain daily given out are curious.

The Shahee Bagh.

The handsome bungalow with its fine garden, known by the name of the Shahee Bagh, is situated upon the bank of the river, $2\frac{1}{2}$ miles to the Northward of the city, and is said to have been built by Shah Juhan when Governor of Ahmedabad, during the reign of his father Juhangeer, for the laudable purpose of affording employment to the poorer classes during a season of famine. The strong wall of masonry which turns the stream of the river at this point is very useful, preventing the water from breaking through during freshes, as it otherwise would, and flooding Ahmedabad. A little beyond the Shahee Bagh is an old garden of greater antiquity, termed the Undharee Baree, within which are extensive ruins of many other buildings ; but such is now the reversed condition of these palaces that they are frequently infested with tigers. The area of the Shahee Bagh garden is 65 acres.

The Udaluj Baoree;

The famous Baoree at Udaluj is probably the finest structure of the kind in Guzerat : it was erected (according to an inscription still legible) in the year 1555 Vikramajet, or about A. D. 1499, by Roorbaee, daughter of Raja Venoo, wife to Raj Veer Sing, Waghela Rajpoot; and its cost is stated to have been 5,00,111 Tukkas or Rupees.

And the Dada Huree Baoree.

The Dada Huree Baoree, situated $\frac{3}{4}$ of a mile North-east of the city, near the village of Usaroowa, is of inferior size, but perhaps little inferior in elegance and beauty : it is said proverbially to have cost three lakhs of Rupees, and from the elaborate carving throughout the whole structure, the sum may not appear very exaggerated. There is a baoree of large size at the village of Boorthul, built on the plan of that at Udaluj, but of a very inferior order.

Rivers of little use in Irrigation.

12. Although the Saburmuttee and Khareerivers have their course through the whole length of the Purgunna, they are of little use to it in irrigation.

The Kharee.

The Kharee river is a narrow stream, never exceeding 20 yards, and often only 20 feet, in breadth, confined between mud banks, and remarkable for its winding and irregular course. As has been noticed, it affords a supply to four of the rice villages, in which, during seasons of abundant rain, there may be about 3,200 beegas bearing rice crops watered during the monsoon, and about 400 beegas of rubbee, wheat and barley, after crops. In Dewuree, Chosur, and Gamree, situated higher up the stream, about 40 beegas receive a small supply during the monsoon, but in all the other villages through which it passes the banks are irregular, and instead of being perpendicular, are sloping ; so that with the present rude machinery, it is not practicable to raise water to the level of the lands above. The supply of water in this river, however, except in seasons of unusually heavy rain, is so very

precarious, that the extension of its use is by no means desirable; and this would seem to have been so well understood by the Native Governments that they at all times discouraged such proposals, though offering temporary advantage. During a succession of years of heavy rain, the supply has frequently been plentiful and equal, and for about ten years previous, and three or four subsequent, to the establishment of the Company's authority at Ahmedabad, it was so much more than sufficient to meet the wants of the villages then enjoying it, that the people of others became clamorous to be admitted to the same privilege. Experience, however, has pointed out that it would by no means be advisable to encourage this apparently laudable spirit, and in the Ahmedabad Zillah it has been discountenanced: should the same precaution not be observed in that of Kaira, the probable consequence will be, that for the temporary advantage of a few minor villages, whose attention might be devoted to other means of improvement, great and lasting injury will be done to the resources of several of the best villages of both Collectorates, situated lowest down the river.

The Saburmuttee.

13. Scarcely a beega of land in the villages on the banks of the Saburmuttee, above or Northerly from Ahmedabad, is watered from it, and in those below, only about 300 beegas receive a supply for rubbee crops: this does not, however, include the bhata, and low lands, which are watered by means of wells. Where the bed of the river is in any degree regular, as is chiefly the case above the city, its breadth averages from 2 to 3 furlongs, of which in the dry season only from one-fourth to one-third may be covered by the shallow stream. Where the bed spreads, as it does so much below the city, the stream will usually be found beneath the high bank on one side, while the rest is occupied by tracts of bhata land, which are liable to be affected by high freshes, and are sometimes entirely washed away, or destroyed by the deposit of deep layers of sand over the good soil: most commonly, though, the loss sustained by one village is made up to another, but the long succession of heavy monsoons of late years has occasioned the loss altogether to the Purgunna of much valuable land, and among the suffering villages may be particularized Veesulpoor, Kasundra, Cheetrasur, Kumor, Palree and Peeplod.

Method of Irrigation from the Kharee by Dams;

14. The method of carrying on irrigation from the Kharee river is by means of mud dams or bunds, which confine the water in a pool until it attains a height sufficient to flood the tract of country around intended to be irrigated; and this it does so effectually, and with so little labour, that it is by far the most favorite method with the Natives. On the Saburmuttee "Dekoorees" are used for the same purpose: the common apparatus of a well is erected on the verge of the high perpendicular bank; and a single pair of bullocks draws up the "Koss," or leathern water bag, assisted by the purchase of a sloping walk cut at a more acute angle than the plain surface presents. But the dekooree can be used only where the stream is immediately beneath a perpendicular bank, or led there by connecting channels cut through the bed of the river. The rudeness of these contrivances exhibits in a striking point of view the want of European machinery; and, perhaps, no better field could offer for its application than this, where a fine river passes through a soil requiring only good water and plentiful manuring to be brought to the highest state of fertility, but at present flows on to the sea without bestowing any benefit worthy of notice upon the neighbouring country.

From the Saburmuttee by Dekoorees.

Want of European Machinery.

15. Irrigation, beyond the scanty means which the rivers afford, is

carried on by the aid of tanks and wells; but of tanks the application is almost as limited as of the rivers—they are used only as an auxiliary to the monsoon supply of rain in bringing forward rice crops, and the greater number

Built Tanks.

are merely small excavations contiguous to the rice grounds. The built tanks are nine in number, viz. the Kakreea, the Mulik Saban, the Surkej, the village tank of Butwa, of Orub, of Neekol, of Sunathul, and of Eesunpoor, and a small one near the Shah Alum; none of which are applied to irrigation in any degree worth mentioning; nor, indeed, does the built tank, from the difficulty of constructing channels from it, appear well adapted for

Chundola Tank.

the purpose. Of the tanks formed by simple earth embankments the only one remarkable for its size is the Chundola, which is situated nearly 2 miles to the Southward of Ahmedabad, and covers 305 beegas or 181 acres of ground: the extent is such that it seldom retains any depth of water long after the close of the monsoon, and much valuable land is yearly cultivated

Wells the only certain resource for Irrigation.

within the bed itself. The great and only certain resource of the Purgunna is its wells: of these, according to the returns of the Survey, wherein they are registered with the fields they water, there are found to be actually

Their number;

worked and fit for use 2,919, and in a partially or wholly decayed state 714; the repair of the whole of the latter, it is estimated, could be effected for about 1,37,000 Rupees. Of the former, 1,369 are situated on the Government and 1,550 on the alienated lands, and of the latter 472 on Govern-

And importance.

ment, and 241 on alienated. The subject of wells is one so important to the interests of the Purgunna, that it may be necessary to enter a little minutely into the nature of their construction, and the best method of increasing their number.

Expense and method of building Wells.

16. As an example of the expense attending, and the process pursued in, the construction of wells, as well as the method of deepening them, when the supply of water proves at first scanty, an account for one of the largest (though not most common) description, working 2 koss, sunk first to 40 haths, and afterwards increased in depth to 50, is given below, as tending to bring all these particulars at once to view. An excavation being made to the depth of 30 haths, and water appearing, a "Chukur," formed of the sumra, keejura, or raen tree wood, and made to fit easily the circumference of the hole, is slipped to the bottom; on this the brick-work is built up, while an excavation goes on at the same instant underneath, by which means the entire structure (in this state termed a "Toondee") is sunk to the distance, if possible, of 10 additional haths, the water being drawn off during the proceeding by several koss, worked by bullocks in the usual manner. The bricks are placed together, without any other cement than a little clay, throughout that portion of the well which is intended to be under water, but must be shaped and fitted with great nicety. On the sinking having been effected to the greatest possible depth, the brick-work is carried up to the surface, cemented with chunam; and the well in this state is finished in every respect. But should the supply of water be found deficient, as is generally the case in large wells, a second toondee, made to fit within the first, is introduced, built upon, and sunk, in a precisely similar manner; and this operation is of a very expensive nature, from the labour requisite in drawing off the mud and water with sufficient despatch. It is occasionally necessary to insert even a third toondee to the additional depth of 6 or 8 haths; sometimes a strong wooden frame, termed a "Kuntwa," is substituted. The expense attendant upon each distinct part of these several operations is shown in the table below. The well is supposed to be shared by 2 Pateedars, who, amongst themselves and relations, can

furnish to assist 8 men and 8 bullocks, estimated as the personal labour in the 1st column :—

	Estimate of Personal Labour.			Cash expended.			Total.		
	Rs.	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*
Excavation by 10 men during 20 days, at 2 annas each per day	20	0	0	5	0	0	25	0	0
Chukur (wood 10, sootar 5, pugree 5) .	10	0	0	10	0	0	20	0	0
Bricks (50,000, kucha, made at $1\frac{1}{4}$ Rupee per thousand)	....			62	2	0	62	2	0
Wood and other fuel for burning the bricks	50	0	0	....			50	0	0
Labourers (12 daily for 10 days, at 2 annas each)	10	0	0	5	0	0	15	0	0
Chunam (2,800 maunds, at 4 Rupees per hundred)	56	0	0	56	0	0	112	0	0
Bricklayers (4, at $\frac{1}{4}$ Rupee, and food worth 2 annas per day)	....			60	0	0	60	0	0
Further excavation, and sinking the toondee 10 haths, including hire of bullocks, labourers, &c.	20	0	0	20	0	0	40	0	0
Contingent labourers, (22 daily for 40 days, at 2 annas each)	40	0	0	70	0	0	110	0	0
Instruments, tools, &c.	....			10	0	0	10	0	0
Expenses to 40 haths....	206	0	0	298	2	0	504	2	0
Chukur for second toondee (wood 4, sootar 4)	4	0	0	4	0	0	8	0	0
Bricks (7,000, at $2\frac{1}{2}$ Rupees per thousand)	....			17	2	0	17	2	0
Bricklayers and labourers	5	0	0	12	2	0	17	2	0
Bullock hire night and day for 10 days, sinking the toondee, &c.	50	0	0	10	0	0	60	0	0
Expenses to 50 haths....	265	0	0	342	2	0	607	2	0

A well of this description will at the outside irrigate by each koss 12 beegas of rubbee, or after produce, but the highest averages on which estimates can be made are 8 beegas to a single koss, 14 to two, and 20 to four koss.

Comparative estimate of the cost of each description of Well.

17. The following table is constructed on a similar calculation to the above, to show the cost, inclusive of personal labour, attending the erection of each of the several descriptions of well in use throughout this Purgunna :—

	At 20 Haths depth.		At 40 Haths depth.		
	1 Koss.	2 Koss.	1 Koss.	2 Koss.	4
	Rs.	*Rs.*	*Rs.*	*Rs.*	*Rs.*
The Kundul kucha kooa, built of kund without chunam	41	..	120	180	
The pucka, with chunam.....	66	100	170	255	
The Eentul kucha kooa, built of brick without chunam	$88\frac{1}{2}$	131	237	355	
The pucka, with chunam.....	137	205	337	500	675

The kucha kooa, or simple excavation, used on the low bhata ground, and varying in depth from 8 to 15 haths, costs from 5 to 11 Rupees; if supported by a "Kuntwa," or stout frame of wood, the cost would be increased to 23 Rupees. The expense increases with the depth of the well; and as far as 40 haths the proportions in 16 may be $2\frac{1}{4}$ for the first 10 haths, $3\frac{1}{4}$ for the second, $4\frac{1}{2}$ for the third, and 6 for the last. If the well exceed in depth 40 haths, the additional cost for the insertion of the 2nd toondee may be one-fourth or one-fifth of the whole expense previously incurred. The extra cost of an increased number of koss may be estimated for two at about half as much more as for one, and for four double that of one.

Preparation of Land for Irrigation also expensive.

18. The preparation of land for irrigation is attended also with considerable expense, in addition to the cost of the well: where waste, or ground that has previously borne only dry crops, is to be converted into rice land, it may be estimated at 10 or 12 Rupees per beega; but where the ground has previously produced rice without artificial irrigation, the expense will be only 4 Rupees.

Method of working the Rameea, or deep;

19. For working the deep wells, termed "Rameea," two pair of bullocks are employed to each koss: the rope, readily slipped from the pair at the bottom of the inclined walk, is drawn rapidly back by the descent of the koss or leathern bag down the well, and immediately fastened to the pair that stands ready at the top, whereby no time is lost, and the koss is drawn up as rapidly as it can fill. The "Soondeea," or shallower wells, are worked by one pair of bullocks only, which, after drawing up the koss, and discharging its contents, retire slowly backwards, without slipping the rope. For the soondeea koss one man is only required; but for the rameea three are necessary, one to each pair of bullocks, and one to draw in and empty the bag on its arriving on a level with the surface. Of the rameea koss (containing from 10 to 12 maunds of water) 700 are usually drawn in the course of a day; but the number may, on extraordinary exertion, be increased to 1,000, if worked without interruption, and with reliefs of men and bullocks. Of the soondeea koss (containing 8 or 9 maunds) about 800 may be drawn in the course of the day, but the number in both instances must depend somewhat on the distance of the water from the surface. A single koss of either description will water, in one day, from $\frac{1}{2}$ to $\frac{3}{4}$ beega; or from that to 1 beega with reliefs of bullocks; and throughout the season the irrigation of 8 or 12 beegas may be accomplished. For working the rameea well, the finest and strongest bullocks are required; but for the soondeea, small light cattle will answer; and these, indeed, sustain less injury from the backward pace than the large heavy bullocks, to which it is said to be detrimental.

And Soondeea, or shallower Wells.

Importance of increasing the number of Wells.

20. The value of wells is so great in securing the crops (particularly the rice) when the usual fall of rain proves scanty, that this species of improvement might perhaps be carried to the utmost extent, with little risk of loss. The land will be increased in fertility, and rendered equal to the growth of superior produce; and, during the lease for a well, pays the ordinary dry grain rent as a fixed thing, whether cultivated or not with an early crop, though in the unimproved state of the land, Revenue is derivable from it, according to the prevailing practice of the Purgunna, only when under actual tillage. The occupation of the Ryut in this species of cultivation will not, as might be supposed, cause the neglect of the dry lands, but the necessity imposed upon him, to provide himself with good cattle for the culture of the irrigation and valuable lands, augments his resources for cultivating those of a poorer description.

Those at present standing, chiefly of old date.

21. The chief portion of the wells that existed on the Purgunna coming into the possession of the Company were found to be of old construction, and their increase may be traced principally to the period (about 50 years since) when the cultivation of rice superseded that of indigo, (a crop not requiring irrigation,) owing to an extraordinary and lasting fall in its price. The unsettled state of the country, and the uncertainty attending all rates of taxation under the frequent changes of rulers and of Revenue farmers, who respect so little the engagements of their predecessors, must naturally be expected to have had the effect of banishing improvement of every kind from the Purgunna ; one, therefore, involving so large an outlay of capital as is required for wells, could very seldom have been attempted.

General rule for the encouragement of Wells much wanted.

22. Under the greater security of rights and property now enjoyed, the wells have increased in number, and many of those previously in ruins have been rebuilt ; but not only in the Duskroee Purgunna, but also in the Dholka and Puranteej, comprising the portion of the Collectorate where irrigation can be applied with the greatest advantage, the want of some general rule and standard for the encouragement of wells is exceedingly felt. The practice generally prevailing is to exempt from payment the rubbee, or after crop, raised through the agency of the well, for such a period as shall cover the net cash expenditure—and this may vary from 3 to 6 years ; but if the land have been previously under cultivation, the rent for the khurreef, or early crop, is paid as usual during the whole term, whether such a crop be subsequently raised or not : on waste of old standing a slight remission for one or two years is made of all rent, whether for the khurreef or rubbee. But the favorable nature, or the contrary, of the conditions granted, is supposed to depend mainly on the estimate which the Koomaveesdar may conceive suitable to the occasion, and on the countenance and support afforded by the Tullatee of the village ; and these in the eyes of the Ryuts are weighty obstacles. An established rule, holding out the probability of a liberal profit, in addition to the repayment of the expenditure incurred, would enable the poorer classes, on the strength of their credit, to engage in the speculation without apprehension ; for it is to be remembered, that nearly every man, in venturing on such an undertaking, is obliged to borrow money at a rate of interest depending on the view the lender takes of the risk and the probable profit to be derived from the lease ; and it can be confidently stated, that numerous instances occur of individuals so far involved by such works of improvement as to be unable afterwards to extricate themselves.

Present practice of granting Gunwuts.

Fails to inspire confidence in the Ryuts.

Advantage of a general Table, laying down the number of years' exemption for each class of Well. Superior Wells to have a lighter Beegotee fixed in perpetuity.

23. The most feasible measure is, perhaps, that of establishing a table, which shall regulate, exclusively, the terms on which gunwuts shall be granted for each class of well, fixed with reference to the depth of the water and the number of koss worked. Still greater encouragement might be held out for the superior description of wells, by fixing in perpetuity a lighter beegotee on the after crops irrigated from them : their original cost is comparatively greater, and so is the expense of working them. If the Government rent on the rubbee (averaged at 3 Rupees per beega) on 8 beegas for a well of one koss, on 14 for two, and on 20 for three, four, or any greater number of koss, should not be equal, within the space of 10 years, to cover the cash expenditure, with compound interest at 12 per cent., calculated on the annual balance, after bringing to account the proceeds of each successive year's crop, an additional exemption from the khurreef rent (averaged at 4 Rupees) might be granted for such a term as would cover the balance. The personal labour of the parties may be considered as the

right of Government, and will be cheerfully yielded, if the terms be in other respects liberal; they do not therefore enter into the cultivation. The beegotee on the rubbee ultimately may be fixed at 2 Rupees for wells of 45 haths' depth and upwards; at $2\frac{1}{2}$ for those of 35 and upwards, and 3 or $3\frac{1}{2}$ for those under 35 haths.

Method of calculating the prime cost, and the value of the exemption granted.

24. The following exhibits the manner in which an estimate may be formed for such a well as that described above—to be brick built, 50 haths in depth, working 2 koss, and equal to water 14 beegas of rubbee :—

Net cash expenditure, exclusive of personal labour				Rs. 342	2 0
Add compound interest at 12 per cent. on annual balances after the beegotee of each successive year on 14 beegas, at 3 Rs. each, is brought to account..				224	3 0
Total				567	1 0
Rubbee beegotee on 14 beegas, at 3 Rs. for 10 yards	Rs. 420	0	0		
Khurreef beegotee on 14 beegas, at 4 Rs. for 2 yards	112	0	0		
				532	0 0
Balance against the Ryut....				35	1 0

This small balance would be of little signification were the rubbee beegotee (the well being of 50 haths) to be permanently fixed at 2 Rupees, which would eventually prove far more than an equivalent. On similar data is calculated the following table, by which gunwuts might be at once granted for any description of well; the eentul are those built of burnt brick, and the kund those of half burnt clay in long pieces, a little curved, to fit the circular shape of the well :—

Example of a Table founded on such a calculation.

Wells.	Description.		Expense.			Rent exempted.		
	Depth of Well.	No. of Koss.	Net Cash expended.	Interest at 12 per cent.	Total.	Khurreef at 4 Rs. per Beega.	Rubbee at 3 Rs. per Beega.	Total Rent exempted.
	Haths.		*Rs. q. r.*	*Rs. q. r.*	*Rs. q. r.*	years	years	*Rs. q. r.*
Kund, mud plastered	20	1	25 0 0	3 2 0	28 2 0	..	2	48 0 0
Kund, chunam built	20	1	35 0 0	6 0 0	41 0 0	..	3	72 0 0
Kund, mud built..	30	1	44 0 0	8 1 0	52 1 0	..	3	72 0 0
Kund, chunam built	30	1	62 0 0	16 0 0	88 0 0	..	4	96 0 0
Kund, mud built..	40	2	113 0 0	31 3 0	144 3 0	..	5	210 0 0
Kund, chunam built	40	2	143 0 0	51 2 0	194 2 0	..	6	252 0 0
Eentul, mud built.	20	1	52 2 0	12 2 0	65 0 0	..	3	72 0 0
Eentul, chunam built..	20	1	72 2 0	23 2 0	94 0 0	..	5	120 0 0
Eentul, mud built.	30	1	91 0 0	33 2 0	124 2 0	..	6	144 0 0
Eentul, chunam built..	30	2	210 0 0	129 0 0	339 0 0	..	8	336 0 0
Eentul, mud built	40	2	215 0 0	138 0 0	353 0 0	..	8	336 0 0
Eentul, chunam built..	40	2	300 0 0	217 2 0	517 2 0	1	10	476 0 0
Eentul, chunam built..	40	4	405 0 0	258 0 0	663 0 0	1	10	680 0 0
Eentul, chunam built..	50	2	342 2 0	224 3 0	567 1 0	2	10	532 0 0
Eentul, chunam built..	50	4	465 0 0	266 0 0	731 0 0	2	10	760 0 0

If the gunwuts for wells of the classes marked *a* should be required for the purpose of working two instead of one koss, the same number of years'

exemption from the rubbee beegotee will answer. The expenses would be fifty per cent. greater, and the profit from the larger quantity of land cultivated in about the same proportion.

Average depth of Water throughout the Purgunna.

25. The people are in general found to be unwilling to commence a well, unless the terms to be granted are previously known and guaranteed to them; and as the above table, or one of the like nature, could not be acted upon, unless the depth at which sufficient water will be found were previously known, the following is subjoined as a pretty correct standard by which this part of the calculation may be universally made, even before any part of the work be began.

If the villages East of the Saburmuttee be divided into two parts by a line drawn from Nurora and Koturpoor through Rukheeal and Butwa, to Chosur, the depth of the water will be found to vary from 30 to 40 haths in the Southern portion, and from 40 to 52 haths in the Northern.

If the villages West of the Saburmuttee be divided into three parts by a line drawn from Oowarsud through Udaluj to Raneep and Kochrub, and a second line drawn from Kochrub through Surkhej to Sunathul, the depth of water in those East of the first line will be found to vary from 40 to 52 haths, in those West of it from 35 to 45 haths, and in those South of the second line from 20 to 35 haths.

The depth of water on bhata land generally varies from 8 to 20 haths.

Superior Produce during the term of a Gunwut should not be subjected to extra taxation.

26. Although the land on which the well is to be erected is intended for the growth of superior produce, and its introduction should actually take place during the term of the lease, still the khurreef rent on the original dry crop only should in justice be taken; for the expense of preparing the land is more than equal to the probable profit to be derived during the period from newly formed rice ground; and the slow growth of sugar-cane, plantains, or other productions of the maleeat class, consumes any superior return they may make during the first seasons of culture. In granting gunwuts the Mookhee Patel should, perhaps, be looked upon as answerable that no material deviation from the agreement be made on the part of the Ryut; but the interference of Tullatees or inferior Native servants of the Kutcheree should be carefully avoided.

Further encouragement proposed for the best descriptions of Wells.

27. For the encouragement of wells of the best description, a portion of the produce raised from such might be granted to the builders and their descendants in perpetuity, whereby the industrious and wealthy would be enabled to leave to posterity lasting and most beneficial memorials of their respectability. If the cost of the well be more than 800 Rupees, for instance, one-fourth of the Government share might be allowed; if more than 1,200, one-third, and if more than 1,500 one-half. Such an arrangement, too, would tend to keep the land perpetually in cultivation, but the repairs of the well should devolve upon Government, whose property it becomes.

Advantage of encouraging Kolees to build Wells, by holding out more favorable terms to them.

28. In concluding this part of the subject, it may not be improper to notice the very great advantages that would arise from encouraging Kolees in particular to employ themselves in works of this nature: the terms granted to them might be made more favourable than those proposed for Koonbees, and a gratuitous advance of cash to cover one-eighth, perhaps, of the expense, might, under proper restrictions, be made them; or a still better plan might be to allow one-fourth of the cost of the well to be defrayed by Government, and the term of gunwut to be diminished a third or a half of the number of years granted to Koonbees; as, in case of the Kolee swerving from his engagements, or not doing justice to the land, it would at an earlier

period be relieved from his occupancy. Such encouragement would tend to work a gradual change in the habits of this large body of the population, whose disposition to tractability and industry requires only to be properly met to render them useful subjects of the State.

Principal Productions of the Purgunna.

29. The principal productions of the Duskroee Purgunna are bajeree, jowar, and dangur (rice) for the early harvest, with barley and wheat for the second or after crop. Bajeree is the staple, but rice the crop of greatest value. Under wet or irrigated crops may be classed dangur (rice), sathee or wuree (coarse rice), selree (sugar-cane), jow (barley), guhoon (wheat), kang, cheena, vegetables, and tobacco. The dry crops are bajeree, jowar, kodra, bowta, buntee, chuna, toour, tul, dewalee, kupas, kusoombee, and indigo. The khurreef, or monsoon crop, is regulated by the nature and localities of the soil; but these make no difference in the description of the rubbee after, or the second, and huree, third irrigated crops, the former throughout the Purgunna barley and wheat, and the latter the poorer kinds of grain called kang and cheena.

Process of cultivation, and return of the Wet Crops.

30. The process of cultivation and return of the wet crops are as follows:—

Dangur or Rice.

Dangur is sown in kalee and kaurda soil. To a beega of uwul land 10 to 12 cart loads of manure are afforded, and this annually where the intention is to raise also an after crop of barley or wheat, but only every second or third year where rice forms the sole crop, as in the "Ukaseea," or land not irrigated by artificial means. The seed is sown in the first place in small beds of the richest soil, in the proportion of from 10 to 15 seers for each beega intended to be cultivated: from these the plants are transplanted in July and August into the prepared beds, which have previously undergone three or four ploughings while in a flooded state. The transplanting is performed by hired labourers, generally the Dhers of the village, at the expense of one Rupee for each beega of land. Abundance of water is required until the ear becomes apparent; and if the monsoon supply should not be plentiful, the deficiency must be made up from wells and tanks. The crop ripens in October, varying in quantity according to the nature of the season between 20 and 40 maunds to the beega, but 28 maunds is a fair average crop for uwul or best land, 24 maunds for doyum or middling, and 20 maunds for soyum or inferior land. About 28 seers of cleaned rice are yielded by one maund of dangur or rice in the husk. The various descriptions of rice include, 1st, the punkalee of superior quality, and worth in a medium year 1 Rupee 2 annas per maund of 40 seers; 2nd, the kumod, 1 Rupee and 1 anna the maund; 3rd, the ulachee, 1 maund and 8 seers for a Rupee; 4th, the sootursal, 1 maund and 10 seers; 5th, wanklo, 1 maund and 20 seers; and 6th, sathee, or coarse rice, 1 maund and 35 seers for a Rupee. Of these the ulachee and sootursal are the most common. The expenses of cultivation, inclusive of personal labour, Government rent, and the average return in the best description of rice villages, are shown below:—

Descriptions of Rice.

Estimate for a Beega of Uwul Land;

For a beega of uwul land:

Manure, 12 carts	Rs.	6	0 0
Seed from 10 to 15 seers		0	1 50
Ploughing and preparing the beds		2	2 0
Watering once and twice, including charges for bullocks.		1	2 0
Transplanting, and expense attendant on the durooWareea seed bed		1	2 0
Expense of cultivation		11	3 50

Brought forward	Rs.	11	3	50	
Beegotee or Government rent		11	0	0	
Total expense		22	3	50	
Produce of dangur, 28 maunds, at 1¼ maund for a Rupee ..... Rs. 22 1 25					
Do. in pral or straw, 1 cart load 1 0 0					
		23	1	25	
Balance lost to the cultivator....		0	0	50	
For a beega of doyum land :					Of Doyum Land ;
Manure, 9 carts	Rs.	4	2	0	
Other expenses, as for uwul land		6	1	50	
Expense of cultivation		10	3	50	
Beegotee		10	0	0	
Total expense.....		20	3	50	
Produce in doyum 24 maunds, at 1¼ maund for a Rupee.		19	0	75	
Do. in pral or straw		1	0	0	
		20	0	75	
Balance lost.....		0	2	25	
After crop of barley, on either uwul or doyum land :					For an After Crop of Barley ;
Ploughing 3 times, and preparing the land	Rs.	2	1	0	
Seed, 2 maunds		1	2	0	
Watering 6 or 8 times, including all charges.....		5	0	0	
Reaping and threshing		1	0	0	
Expense of cultivation		9	3	0	
Beegotee		3	0	0	
Total expense		12	3	0	
Produce, varying from 20 to 35 maunds, average 28 maunds, at 2 maunds per Rupee ..... Rs. 14 0 0					
Do. in pral 1 cart load 1 0 0					
		15	0	0	
Balance of profit to the cultivator..		2	1	0	
After crop of wheat, costing 1 Rupee more than barley for seed :					And of Wheat.
Expense of cultivation	Rs.	10	3	0	
Beegotee		3	0	0	
Produce, varying from 15 to 30 maunds, average 20 maunds, at 1 maund and 5 seers for a Rupee ..... Rs. 18 0 0		13	3	0	
Do. in pral, 1 cart load 1 0 0					
		19	0	0	
Balance of profit to the cultivator..		5	1	0	

Wheat is not so common an after crop as barley, on account of its great liability to blight, and requires rather better water than either rice or barley. The land for these crops is, previous to cultivation, watered with

Nature of the cultivation of Wheat and Barley.

the old stubble standing, in order to render it easy of tillage to the plough. The seed, after the further preparation of smoothing and clearing the surface has been performed, is sown by hand, following a second plough, and the furrows are immediately filled up by the sumar being drawn over them. In this method of sowing, the quantity of wheat seed required is double that used with the drill plough in the chaseea cultivation (wheat raised without irrigation), where it is confined to the narrow limit of the deep furrow, deriving its sustenance entirely from the moisture of the earth; but here it is necessary that the seed should be near the surface, as its nourishment depends so much on manure and irrigation.

Estimate for a Beega of Soyum Land, without Irrigation.

For a beega of soyum land, to which irrigation is not available for after crops, the expenses of cultivation and return are as follows :—

Manure, 6 carts				Rs.	3 0 0
Ploughing and preparing the beds					2 0 0
Seed, 10 or 15 seers					0 1 50
Transplanting and expenses of duroowareea					1 2 0
Watering (one or two times from tanks)					1 2 0
Reaping and threshing					0 2 0
Expense of cultivation					8 3 50
Beegotee					8 0 0
Total expense					16 3 50
Produce in dangur 20 maunds, at $1\frac{1}{4}$ maund for a Rupee	Rs.	16	0	0	
Do. in pral, 1 cart load		1	0	0	
					17 0 0
Balance remaining					0 0 50

Sathee, or Coarse Rice.

For Sathee (coarse rice) in soyum land of the poorest soil :

Ploughing, weeding, and reaping				Rs.	2 2 0
Seed, 30 seers					0 2 0
Beegotee					4 0 0
Total expense					7 0 0
Produce in sathee 18 maunds, at 2 maunds per beega	Rs.	9	0	0	
Do. in pral		1	0	0	
					10 0 0
Balance remaining					3 0 0

Sathee is sown broad-cast in ground that is not regularly prepared for rice, and generally in the early part of the rains, when it can hardly be judged whether the fall will be sufficiently heavy to rear the crop; on this account the return from it is uncertain. It is cultivated chiefly by Kolees and other poor classes, and frequently by mere manual labour, where the aid of a plough cannot be commanded.

Selree, or Sugar-cane.

"Selree," or sugar-cane, is usually found in detached fields: it is of two descriptions, the "Kalee," black or red cane, and the "Dholee," or white. The kalee is generally grown on the high lands of the goraroo soil, with the aid of rich manure, and (the first essential) with the advantage of good water, the same land is equal to produce the crop only once in four or five years, and the ground should be fallow during the rains preceding the sowing, and undergo also as much ploughing as can be bestowed upon it

through the cold season. In February 25 cart loads of manure of the best description, with 40 of black earth or mould from the beds of tanks, are laid over the land, and ploughed into it thoroughly. In March or April the seed canes, about 12,000 pieces, each piece containing three joints or eyes, are sown by the pressure of the foot into small square beds, purposely formed and flooded, each piece of cane placed lengthways, being two or three inches apart, and the rows about fifteen inches asunder. A wall of mud is generally thrown up all round the field to the height of a man, as a protection against wild hog and jackals. It receives 6 or 8 waterings, at intervals of 10 days, previous to the rains, and about 15 from their termination until the crop ripens, in January and February. The cane is cut fresh daily as it is required for extracting the juice, which is done on the spot by means of the male and female screw mill, through which the sticks are passed twice, the juice finding its way into an earthen vessel under ground communicating with the mill. The boiling goes on at the same instant, as under any delay the juice would ferment; and the process continues night and day, on account of the expense for labour, and the hire of the screw and boiler, with people attendant. The fuel is chiefly the "Surkut," a stong reedy grass, which grows in the waste about the banks of the rivers, or small thorny jungle, which becomes exceedingly scarce when the cultivation of sugar-cane is extensive. The screw is made of the largest sized babool wood (on account of its peculiar hard and tough quality), brought from a distance of from 40 to 80 miles, and costs 20 Rupees for the rough timber, and 5 for making,—in all 25 Rupees,—and it will last generally a couple of years: it can extract the juice the first season of 20 beegas of cane, and the second of 15, and is to be hired by the day for 6 or 8 annas. The "Taora," or iron boiling pan, is worth 60 Rupees, and is generally hired at from ½ to 1 Rupee per day, and will last many years. The juice, as it is boiled, is poured into a trough formed with tiles on the surface, and on cooling is put into earthen pots of about 2 maunds weight each, in which state it is sold to the Buneeas, and is brought to market as "Gol," or raw sugar.

Estimate for a Beega of Red Cane.

For a beega of the red sugar-cane the expense of cultivation and return are shown below:—

Ploughing 22 times, at various periods previous and subsequent to manuring	Rs. 13	2	0
Black mould, 40 cart loads	18	3	0
Seed cane, 12,000 pieces	18	0	0
Sowing, weeding, and repairing the beds	7	0	0
Watering, inclusive of expense of cattle, &c.	30	0	0
Rukopee, or guard	4	0	0
Mud wall	4	0	0
Tying up the canes	3	0	0
Labourers in cutting the cane, expressing the juice, &c.	16	0	0
Hire of the boiling pan	4	0	0
Earthen pots for the gol (raw sugar)	4	0	0
Expense of cultivation....	122	1	0
Beegotee, varying, according to the soil and expense of culture, between 12 and 30 Rupees, say	20	0	0
Total expense, including charge of personal labour..	142	1	0

Brought forward.... Rs.	142	1	0
Produce, from 40 to 100 maunds (say 60 maunds), at 2¾ Rupees per maund	165	0	0
Net profit	22	3	0

For a Beega of White Cane.

For a beega of the "Dholee," or white sugar-cane, chiefly the produce of the bhata land, requiring less manure, and being altogether more easy of culture, the expenses and return are as follows:—

Ploughing 18 times..... Rs.	11	0	0
Manure, 20 carts.....	15	0	0
Seed cane, 8,000 pieces.....	8	0	0
Sowing, weeding, &c.....	7	0	0
Watering	25	0	0
Guarding.....	4	0	0
Mud wall.....	4	0	0
Tying up the plants.....	3	0	0
Labour hire in cutting the cane, and expressing the juice	14	0	0
Hire of screw and taora.....	3	0	0
Earthen pots.....	3	1	0
Expense of cultivation....	97	1	0
Beegotee, varying between 15 and 33 Rupees, say.....	25	0	0
Total expense, inclusive of personal labour.....	122	1	0
Produce, from 25 to 70 maunds, say 45, at 3 Rupees per maund.....	135	0	0
Net profit.....	12	3	0

The gol from the white cane bears a rather better price than that from the red, but the latter yields the largest return. The price of gol at 3 Rupees per maund is very good for both, and may be a trifle above what is ordinarily obtained, excepting in two or three villages, (Kasundra and Veesulpoor particularly,) where the quality is superior. The calls on the proprietors of the field, independent of the rent paid to Government, are very heavy, and in villages where only a few beegas may be cultivated consume nearly all the profit: these are "Dustoorees" in kind both of cane and gol to the village establishment of "Wuswaeeya," or artizans, religious classes, and the poorer orders, and may amount altogether to 10 Rupees to a beega. A solitary field of sugar-cane in a village is liable to suffer much from wild animals, whose depredations where the growth is extensive are more divided. These drawbacks frequently deter many from venturing on its introduction in villages remotely situated, but where the lands are perfectly well adapted to the crop.

Heavy Dustoorees or Fees in addition to the Government Rent.

Sankha, or fallow Wheat and Barley.

Jow, ghoon, barley and wheat, are said to be "Sankha," or in fallow, where they have not been preceded by a khurreef crop, and consequently yield a better return; but the additional expense of manure, together with the higher beegotee, is equivalent to the larger profit; the process of cultivation is the same as for the after crop of the same species:—

Expenses of ploughing, manure, seed, weeding, &c.....				Rs.	14	2 0
Beegotee, varying from 3½ to 5 Rupees, say.....					4	0 0
Total expenses.....					18	2 0
Produce of barley from 20 to 50 maunds, say 34 maunds, at 2 maunds for a Rupee.	Rs.	17	0 0			
Straw		1	1 0			
					18	1 0
Balance less.....					0	1 0

The expense of wheat is one Rupee greater for seed, and the return in produce averages 24 maunds, worth with the straw 22¾ Rupees, by which a net profit would accrue to the Ryut of 3¼ Rupees; but the liability to blight is exceedingly great; and requiring, also, better water than barley, it is the less favourite crop of the two. Wheat raised by irrigation is also inferior to the chaseea ghoon, or that of ordinary growth in its own natural soil, which comes forward without further moisture than the dews.

Kang and Cheena, cheap Grains.

Kang and cheena are cheap grains, grown generally as the third or huree crop, during the hot season, in succession to barley and wheat, in situations where irrigation is available from rivers and wells. They require a smaller quantity of manure than the crops which precede them, and the various other expenses of tillage also are less, except for watering, which will be 4 Rupees to a beega. The total charges of cultivation for a beega, including personal labour and the beegotee, which is from 1½ to 2½ Rupees, are about 9 Rupees, and the produce when abundant is worth 12¾ Rupees. The quantity of seed required for either is 7 seers, and the return from each from 10 to 35 maunds—for kang 25, and cheena 20 maunds, being fair averages.

Tobacco.

Tobacco, "Peeth," or raised by irrigation, as yet by no means forms a considerable article of produce, though its extension may be expected as the Purgunna advances in prosperity. In the process of cultivation the ground is, in the first place, manured in May or June with 14 cart loads of good cow and buffalo dung. It is afterwards ploughed up at least once a month, and must be kept clear of weeds until October, when the transplantation commences. The seed, about a quarter of a seer, worth a quarter of a Rupee, is sown in August or September, in small beds of good earth, without manure, and watered daily, till, after 30 or 40 days, the plants are ready for removal. The field prepared for their reception undergoes four more ploughings, and is twice smoothed over with the sumar, when the plants are sown, at the distance from each other of 1 square hath or cubit both ways. Six waterings take place, at intervals of 15 days, and when the plants have attained considerable growth, and thrown out 10 or 12 leaves, they are clipped off by the heads, an operation which is repeated on every new shoot and eye above each leaf, to prevent seeding and wasting of strength and substance; both the quality and quantity of the tobacco depend on this troublesome and minute process being carefully attended to. The crop ripens in January and February, and the plants are cut down by hand at the distance of 4 or 5 inches from the ground. After lying 4 or 5 days to dry, they are carefully conveyed home early in the morning while moist from the dew, and there the leaves are stripped and packed in parcels of 3 or 4 seers weight each, which are piled up, and aired every 8 or 10 days, by being shifted to a fresh place.

The expense of cultivation and the return for a beega are these:—

Manure, good cow or buffalo dung, 14 cart loads .... Rs.	7	0	0
Ploughing, harrowing, &c. 8 times	4	0	0
Seed ¼ seer, and expenses of duroo beds	1	2	0
Transplanting	1	0	0
Watering 6 times	7	0	0
Trimming the plants	3	0	0
Reaping	1	1	0
Expenses of cultivation	24	3	0
Beegotee from 7 to 12, the produce being rather inferior in quality	10	0	0
Total expenses	34	3	0
Produce from 25 to 50 maunds, say 35 maunds, at 1¼ Rupee per maund	43	3	0
Balance remaining	9	0	0

Vegetables.

Vegetables are the produce of both the kalee and the goraroo soil, requiring a larger quantity of manure in the latter than the former. Their annual produce in quantity is not ascertainable, on account of its coming to market daily, neither is the expense of cultivation to be defined. The land in which they are grown varies in beegotee from 6 to 10 Rupees; and in one village close to the city the payment of a fixed sum is made on each well for the whole of the land in waters; and the rent of the entire space irrigated averages about 8¾ Rupees per beega. The several kinds produced during the monsoon are beenda, toorea, keeree, pundola, kuntola, walor, and koteemree; during the cold season brinjal, bajee of all sorts, sukreea, or sweet potatoe, moola, gajur (carrots), dooree, geelora; and during the hot season karelee, areea, bajee, sukurtetee.

Process of Tillage and Return of the Dry Crops, Bajeree and Kuthol, or Pulse.

31. The process of tillage of the dry crops is as follows:—

Bajeree and kuthol (the latter being a pulse crop of mug, mut, goowar, chola, urad, wal, and sum), grown on oobeerea or pandhur (not irrigated) goraroo soil of the uwul, or best sort, require 10 or 12 cart loads of manure for a beega of land every 2nd or 3rd year; but in kooweetur, or well land, where the intention is to raise also a second or after crop by irrigation, the supply must be repeated annually. The ground receives two ploughings after the first fall of rain, is smoothed with the sumar, a board drawn over the surface, and afterwards harrowed. The seed (5 seers of bajeree, with 3 seers of kuthol intermixed,) is sown in July by means of the drill plough, and the ground is again smoothed over with the sumar. Weeding takes place after about 25 days, and the rampree (an iron blade) is drawn horizontally between the ridges to clear away stubble and weeds that may have escaped notice. When the crop becomes a month and a half old, the ridges are ploughed between, and the sumar is again used, although the bajeree may be the height of 2 feet: the advantage derived from this proceeding is that two or three new shoots spring from the root, each bearing a head of grain, and the check to the growth of the parent stalk renders it also more productive. The grain ripens in general early in October, when it is cut and stacked, but if left too long before reaping sustains injury. The threshing takes place at any time after the grain is thoroughly dried, and is performed by several bullocks, tied together abreast, walking round a pole, to which the nearest is fastened, trampling over the heap of heads of bajeree, until

the seed is entirely worked out of them. The kurbee, or stalk of the bajeree, is inferior to that of the jowar, but is nourishing forage for bullocks. The kuthol crop comes forward about a month later, after the bajeree is entirely cleared away; but when the intention is to raise a rubbee crop of wheat or barley on the same land, it is not intermixed with the bajeree, which is then sown singly. The stalk and leaves of the kuthol produce are the finest forage: a great quantity of it is reaped in a green state to meet the daily consumption of the Ryuts' cattle, and it makes up very much for the want of grass, which is at all times scanty when the soil is of the gora-roo description. The expenses of cultivation and return for bajeree with kuthol in uwul land are as follows :—

Estimate for a Beega of Uwul Land;

Manure, 10 cart loads every 2nd or 3rd year, say equal to 4 carts annually	Rs.			2	0 0
Ploughing				2	2 0
Seed, 5 seers of bajeree, and 3 of kuthol				0	1 0
Weeding				1	1 0
Reaping and threshing				0	2 0
Expense of cultivation				6	2 0
Beegotee, varying from 3 to 5½ Rupees, say				3	3 0
Total expenses				10	1 0
Produce in bajeree and kuthol, from 10 to 20 maunds, say 16 maunds, at 1½ maund per Rupee	Rs.	10	2 50		
Kurbee (200 bundles) and gotur		1	2 0		
				12	0 50
Balance remaining				1	3 50

For a beega of doyum land :—

For a Beega of Doyum;

Manure	Rs.			1	1 0
Other expenses as for uwul land				4	2 0
Expense of cultivation				5	3 0
Beegotee, varying from 1¾ to 4 Rupees, say				2	3 0
Total expenses				8	2 0
Produce in bajeree and kuthol, from 7 to 18 maunds, say 13½ maunds, at 1½ maund per Rupee	Rs.	9	0 0		
Kurbee and gotur		1	3 0		
				10	3 0
Balance remaining				2	1 0

For a beega of soyum land :—

And of Soyum.

Expenses (no manure afforded)	Rs.			3	2 0
Beegotee, varying from ¾ to 2¼ Rupees, say				1	2 0
Total				5	0 0
Produce in bajeree and kuthol, from 2 to 10 maunds, at 1½ maund per Rupee	Rs.	4	3 50		
Kurbee and gotur		2	0 0		
				6	3 50
Balance remaining				1	3 50

The kurbee of the bajeree and stalks of the kuthol yield a better return in the doyum and soyum lands than in the uwul.

Jowar and Kuthol.

For jowar and kuthol, the process of cultivation is much the same as for the bajeree and kuthol. The quantity of seed required to a beega is rather greater, being 12 seers of jowar and 3 seer of kuthol for uwul, 20 seers (both together) for doyum, and 25 seers for soyum land; and the return looked for is chiefly from the kurbee in the poorer lands, wherein it is finer, and altogether of superior quality than the produce of the rich soils. The average return in grain may be from the uwul 14, the doyum 11, and the soyum land 5 maunds, the proportion in jowar being three-fourths, and of the kuthol one-fourth. The value of the jowar kurbee is greatly superior to that of bajeree, and the price of the grain also somewhat better.

Kodra.

Kodra is grown in the poorer goraroo lands, intermixed, generally, with a little toour. The expenses of cultivation are rather less than for bajeree, though the process is nearly the same, except that manure is seldom afforded. The quantity of seed requisite is 7 seers, which are sown together by the drill plough. The expenses of cultivation inclusive of the beegotee (3 Rupees) are $5\frac{1}{2}$ Rupees, and the value of the produce $7\frac{3}{4}$ Rupees. Kodra does not answer two years on the same land, but ought to be succeeded by jowar or bajeree.

Buntee.

Buntee is grown in the same kind of land as kodra, and, excepting that it is sown alone, resembles it in every respect.

Bowta.

Bowta is grown in the medium soil between goraroo and kalee bhoeen, and, like rice, the seed is previously sown in small beds, from which it is transplanted into the fields, but is sown by hand in the furrows formed by the plough, and not planted, like the rice, in beds flooded with water. The rest of the process is similar to that for the culture of bajeree, except that the heads of grain, when ripe, are broken off, and the straw is left standing, being of little value. It does not thrive in the same land two years successively, and is followed by no crop in particular. The uwul and doyum lands are manured to the extent of 6 cart loads, but the soyum receive none. The expense of cultivation with manure is $6\frac{3}{4}$ Rupees, and the beegotee generally $3\frac{1}{2}$ Rupees. An average crop on good land yields in full $11\frac{1}{4}$ Rupees.

Chuna, or Gram.

Chuna or gram is grown in soil tending to the kalee, and generally on land lying fallow for a better but more exhausting crop in the ensuing season. About 20 seers of seed are required to a beega, which is sown at the close of the rains, and after the plant has attained a month's growth, and previous to blossoming, its head is nipped off, (being eaten as a vegetable,) the shrub from this operation spreading and coming to seed better. The expenses of cultivation, inclusive of the beegotee $1\frac{1}{2}$ Rupee, are $4\frac{3}{4}$ Rupees. The produce averages about 14 maunds, worth $9\frac{1}{4}$ Rupees. The crop is liable to blight from excessive cold, and it therefore does not form an article of extensive cultivation.

Dewula, or Castor Oil.

For dewula, the castor oil plant, the process of culture is the same as for gram, requiring a similar soil, and the crop being a fallow one. The produce averages 6 maunds of oil nut, worth $6\frac{1}{4}$ Rupees, each maund of which yields 17 seers of oil, worth $3\frac{1}{2}$ Rupees per maund.

Tul.

Tul is sown in any soil, and without manure. The seed, half a seer, is mixed with a little manure or sand, on account of its very small size, and is sown in September. It does not exhaust the soil, and is succeeded by bajeree and jowar. The expenses of cultivation, inclusive of beegotee $1\frac{1}{2}$ Rupee, are $3\frac{3}{4}$ Rupees. The produce in seed averages 5 maunds, worth 9 Rupees; and from a maund $19\frac{1}{2}$ seers of sweet oil are extracted, worth $1\frac{3}{4}$ Rupee per maund. It is subject to blight from a small insect, and the return from it is thereby rendered very uncertain.

Kupas, or cotton, is grown to a very limited extent in this Purgunna, on account of its liability to blight in the goraroo soil from frost or excessive cold, but otherwise it would be a profitable crop. The expenses of cultivation, including the Beegotee 3 Rupees, are about 6 Rupees ; and the return 8 Rupees, estimating the produce of a beega at an average of 4 Rupees. Kupas, or Cotton.

Kusoombee requires a soil more of the besur or mixed quality than this Purgunna presents, and its growth is by no means extensive. The expenses of cultivation, inclusive of the beegotee $1\frac{1}{2}$ Rupee, are $8\frac{1}{4}$ Rupees, and the return for both flowers and seed 14 Rupees ; but in consequence of its very limited cultivation the beegotee is by no means equal to the rate for good and abundant crops. Kusoombee.

Indigo is grown in goraroo soil, and thrives as well in the poor as in rich manured land, and possesses besides the singular quality of fertilizing the soil. The seed (of which a beega requires from 10 to 18 seers) is sown by hand in June or July, after the first fall of rain, and the land requires no previous tillage; but two ploughings take place immediately afterwards, and the surface is then smoothed over with the sumar. Weeding is performed three times, at intervals of 15 days, and the plant arrives at the proper state for reaping in September or October, when it is cut about a span from the ground, and generally conveyed to the kullee, and preserved in a dry state for sale: the more approved practice would be to steep the shrub while green, and at once extract the dye; but the want of kotas, or vats, for the purpose, except at a few villges, renders this impracticable. A beega will yield from 10 to 30 maunds of dry leaves, and 20 maunds is an average crop. The value of the leaves is about 2 Rupees per maund. The process by which the dye is extracted is as follows :—The leaves (and stalks with them if green) are thrown into a vat filled with water, and left to steep during one night with a pressure upon them. In the morning the water is drained off to a second vat, where it is stirred from 8 to 12 hours, until the proper colour is pronounced to be attained by an experienced person; it is then left to settle until the next day, when the sediment is taken out and exposed on cloth to dry and harden, in which state the indigo is fit for market. The expense of culture is about 8 Rupees, exclusive of the beegotee, which may vary from 2 to 5 Rupees. The average produce of indigo may be 16 seers, which, at 60 Rupees per maund, would realize 24 Rupees; but the very recent renewal of its culture prevents a perfectly exact account of the expense and return being given. The extent to which the cultivation of this crop may hereafter be carried must depend on the continuance of the present high price; but the soil of the greater part of the Purgunna is particularly well adapted to it. Indigo.

32. The expenses of culture attending each description of produce in English money, calculating the Rupee at 2*s.* 3*d.*, together with the greatest and least produce by a similar valuation, are given below on the English acre; and the medium of any of these crops may be taken as the average of a good season. The labour is generally performed by the Ryut and his family, without extra aid; the expenses of cultivation, therefore, are the charges that would attend the entire process were it done by hire; and the Ryut, where a loss appear, does not even receive such a profit from his fields as would equal the wages of a simple hired labourer. The substance of this table in beegas and Rupees has been already given in treating separately of each species of crop; and it may be necessary to state that the seer is not exactly an English pound, but so nearly equal to it as will be sufficient for the present purpose, being only about the fifth of an ounce heavier than the pound avoirdupoise. Table of the Expense of Cultivation and Return of each description of Produce, calculated in English Money for an English Acre.

Description of Produce.	Expenses of Culture per Acre.												Government Rent.			Total Expenses and Rent.			Produce per Acre.									Profit.			Loss.		
	Manure.			Seed.			Ploughing, Weeding, Guarding, &c.			Watering.			Total Expenses.						Grain.						Value of the Grass and Straw.			Total Produce.					
																			Quantity.	Value.													
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Dangur, greatest produce ..	0	19	1½	0	5	7½	0	17	5¼	0	5	8¾	2	7	11	2	2	2¼	4	10	1¼	2720	6	1	6	0	3	11¼	6	5	5¼	1	15	4	....		
Ditto least ditto ..	....			0	5	7½	0	15	5½	....			1	1	1	0	19	1½	2	0	2½	680	1	10	11¼	0	2	9¾	1	13	9	....			0	6	5½
Sathee, greatest	....			0	3	7¾	0	9	6¾	....			0	13	2½	0	15	3½	1	8	6	1360	1	18	3	0	2	3	2	0	6	0	12	0	....		
Ditto least	....			0	3	7¾	0	9	6¾	....			0	13	2½	0	5	8¾	0	18	11¼	410	0	11	6	0	1	1½	0	12	7½	....			0	6	3¾
Bajeree Kuthol, greatest ..	0	7	10½	0	0	10	0	18	2½	....			1	6	11	0	19	1½	2	6	0½	1700	3	3	10	0	7	3¾	3	11	1¾	1	5	11¼	....		
Ditto least.. ..	....			0	0	10	0	14	4	....			0	15	2	0	4	9¼	0	19	11¼	270	0	10	1½	0	9	0	0	19	1½	....			0	0	9¾
Jowar Kuthol, greatest ..	0	7	10½	0	1	1½	0	18	2½	....			1	7	2½	0	19	1½	2	6	4	1500	2	16	3	0	8	5¼	3	4	8¼	0	18	4¼	....		
Ditto least	....			0	1	8¼	0	14	4	....			0	16	0¼	0	4	9¼	1	0	9½	210	0	7	10½	0	11	3	0	19	1½	....			0	1	8
Sankhe Jow, greatest.. ..	0	13	6	0	4	6	0	14	7½	0	19	1½	2	11	9	0	19	1½	3	10	10½	2720	3	16	6	0	3	11¼	4	0	5¼	0	9	6¾	....		
Ditto least	....			0	4	6	0	12	4½	0	19	1½	1	16	0	0	9	6¾	2	5	6¾	1020	1	8	8¼	0	3	11¼	1	12	7½	....			0	12	11¼
Sankhe Ghoon, greatest ..	0	13	6	0	9	0	0	14	7½	0	19	1½	2	16	3	0	19	1½	3	15	4½	2040	5	1	3	0	3	11¼	5	5	2¼	1	9	9¾	....		
Ditto least.. ..	....			0	9	0	0	12	4½	0	19	1½	2	0	6	0	9	6¾	2	10	0¾	680	1	13	9	0	3	11¼	1	17	8¼	....			0	12	4½
Wava-ware, or after Jow, greatest ..	....			0	4	6	0	12	4½	0	19	1½	1	16	0	0	15	2	2	11	2	2380	3	6	11¼	0	3	11¼	3	10	10½	0	19	8½	....		
Ditto least	....			....			....			....			1	16	0	0	7	7	2	3	7	1020	1	7	6¾	0	3	11¼	1	11	6	....			0	12	1
Wava-ware, or after Ghoon, greatest	....			0	9	0	0	12	4½	0	19	1½	2	0	6	0	15	2	2	15	8	1700	4	5	6	0	3	11¼	4	9	5¼	1	13	9¼	....		
Ditto least	....			....			....			....			2	0	6	0	7	7	2	8	1	680	1	13	9	0	3	11¼	1	17	8¼	....			0	10	4¾
Sankhe Kang, greatest ..	0	7	10½	0	0	6¾	0	13	6	0	19	1½	2	1	0¾	0	11	5	2	12	5¾	2720	3	16	6	0	1	1½	3	17	7½	1	5	1¾	....		
Ditto least	....			0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	5	8¾	1	18	11	680	0	19	1½	0	1	1½	1	0	3	....			0	18	8
Sankhe Cheena, greatest ..	0	7	10½	0	0	6½	0	13	6	0	19	1½	2	1	0¾	0	11	5	2	12	5¾	2240	3	3	0	0	1	1½	3	4	1½	0	11	7¾	....		
Ditto least.. ..	....			0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	5	8¾	1	18	11	680	0	19	1½	0	1	1½	1	0	3	....			0	18	8
Wava-ware Kang, greatest..	....			0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	7	7	2	0	9¼	2040	2	17	4½	0	1	1½	2	18	6	0	17	8¾	....		
Ditto least ..	....			....			....			....			1	13	2¼	0	3	10	1	17	0¼	640	0	19	1½	0	1	1½	1	0	3	....			0	16	9¼
Wava-ware Cheena, greatest.	....			0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	7	7	2	0	9¼	1700	2	7	9¾	0	1	1½	2	8	11¼	0	8	2	....		
Ditto least ..	....			....			....			....			1	13	2¼	0	3	10	1	17	0¼	680	0	19	1½	0	1	1½	1	0	3	....			0	16	9¼

| | | |

Nature of the foregoing Estimates and Calculations.

33. In venturing to give the above estimates and calculations, it must be noticed that they are not intended as fixed and certain, though framed with care, and on as correct data as procurable. They may possibly be fallacious, but will at all events be useful for the general purposes of inquiry, and serve to convey a good idea of the proportionate value of each crop. The expenses of cultivation will appear to be rated highly; but, as above noticed, they include the personal labour of the Ryut and his family, which is tantamount to the wages he would receive were he hired to till the lands of another person: the charge of ploughing and watering must also be understood to embrace the maintenance of cattle, and the wear and tear of agricultural implements. The seed is generally, perhaps, the only article actually paid for in cash, but the prime cost of bullocks and other stock must also be taken into consideration.

Trees.

34. The trees met with in this Purgunna are of the following kinds: the "Amb," or mango; the "Amlee," or tamarind; the "Raen," producing the keernee fruit; the "Mowra," from which is distilled a strong intoxicating liquor; the "Kot," or wood-apple; the "Bur"; the "Peepul"; the "Jambooa," and the "Leem": the "Tar" or brab is not common, but occasionally seen. The four first only can be classed as fruit trees, and are subject to taxation: they are considered as property distinct from the land, and are saleable from one person to another; thus a field and the trees upon it often belong to different parties. There are no jungle trees, unless the common bawul, and the sumra and keejura (male and female of the same species), which are scarce, may be considered as such. Encouragement for planting mango trees, particularly in the poorer goraroo villages, is a subject not unworthy of attention: they add both to the appearance and value of the lands, and are a great source of comfort to the people.

Agricultural Implements.

35. The agricultural implements in use throughout this Purgunna are exceedingly simple: the light nature of the tillage best adapted to the soil renders depth of ploughing, or the application of complicated machinery, unnecessary; and the following are found to perform every requisite operation:—

The "Hul" or "Santhee," the plough, is of the lightest description, drawn by a single pair of bullocks, and not exceeding $2\frac{1}{2}$ Rupees in cost.

The "Chawur," the drill, by which the seed of most of the grains is sown, is worth 1 Rupee.

The "Ramp," an iron instrument drawn horizontally over the surface, to cut away stubble and weeds in preparing the land for cultivation, is worth $2\frac{1}{4}$ Rupees.

The "Rampree," of the same description as the ramp, but smaller in the blade, is used as a hoe for weeding between the furrows of the cultivation after the grain has attained considerable height, and is worth $\frac{1}{2}$ Rupee.

The "Sumar," a flat board, drawn over the surface after ploughing, to level it preparatory to sowing, is used in the same manner over the bajeree when it is about a foot in height, and in black soil also over the jowar, answering the purpose of hoeing to the roots of the plants; and the slight check thereby given to their growth renders them more productive in grain, as from the bajeree two or three fresh shoots will spring up from the roots, and bear likewise.

The wood-work of these instruments is made from the teak, blackwood, and babool trees, and the additional expense of the yoke and harness for the bullocks is from $\frac{3}{4}$ to 1 Rupee.

Manure.

36. The manure used in this Purgunna is merely what each Ryut's farm yard affords from his bullocks, cows, and buffaloes, and of which it is estimated that from a fourth to a sixth is consumed for fuel. Black mould, when procurable, and earth from the beds of tanks, as far as the means of conveyance can be commanded, are also laid over the fields. Without such aid the soil in its natural state yields very scantily of all grain crops; and the cultivation of sugar-cane is very frequently regulated in extent by the quantity of this valuable commodity that can be obtained: where saleable, the price varies from $\frac{1}{4}$ to $1\frac{1}{2}$ Rupee for a two bullock cart load, the latter being the cost in some of the richest Maleeat villages. The introduction of any superior process of manuring is greatly to be desired. Indigo grown in the poorest goraroo soil enriches it so much as to equal the manuring for the grain crop of one year, and the dregs from the vats are held in estimation for the best crops; but this supply is altogether unworthy of notice, from the very limited growth of the plant. Sunn, or hemp, also forms a good manure, by ploughing the plant into the soil after it attains the growth of two or three feet: it is had recourse to, partially, in some of the Churotur villages in the Kaira Collectorate, but the practice seems to be unknown here.

Ancient mode of Assessment by Bhag Butaee.

37. The ancient mode of assessment in the Duskroee Purgunna appears to have been that of bhag butaee, or the taking a share of the produce in kind, in the proportion of a third to the Government and two-thirds to the Ryut: whether any veeras, or money taxes, in addition, were levied on those engaged in agriculture cannot be satisfactorily ascertained; though it is probable that such was the case, and that a considerable sum was in addition realized from the trading classes. The beegotee system is supposed to have been introduced with the land measurement of Todur Mul, but it does not appear at any period to have entirely superseded the bhag butaee, which in numerous instances still exists, and has remained unaltered from the earliest times. No information to be relied on is obtainable relative to the rates of the early beegotee assessment: they do not seem to have been of a fixed nature, or with reference only to the quality of the soil, but to have varied according to its productions, by whose marketable value they were regulated.

First introduction of the Beegotee.

System under the Mahrattas.

38. Under the rule of the Mahrattas, neither system appears to have had particular ascendancy; the Patels being looked on as responsible for the Revenue, the manner of its collection was left to themselves and the rest of the village community. To this and long continued distress, arising from over exaction and want of security to property, may be attributed the absence of any well-regulated system of management when the Purgunna came into the Honorable Company's possession. With the exception of the principal rice villages, in which some uniformity existed in the quantities taken as the Government share, no two villages could be said to conform to exact similarity of assessment. The common practice in those after the bhag butaee mode was to levy as the Government share a half or two-fifths of the khurreef or wet crops, a third or fourth of the rubbee, and a fourth or fifth of the huree or third crop, while the dry grain lands in the same villages would be subject to a light beegotee, and further money payments exacted under a variety of veeras. In the beegotee villages there existed an understood classification of the lands under uwul or first sort, doyum or medium, and soyum or inferior; of the grand divisions of soil, the goraroo, bhata, and kalee, distinguishing the irrigated and the dry lands; and as the assessment had reference also to the description of produce, a method of taxation was in these prosecuted, of scope sufficient to embrace every variety

in both the soil and crop. For uwul land producing bajeree, jowar, and other dry grains, the beegotee was about 4 or 5 Rupees, for doyum 2 or 3, and soyum 1 or 2 Rupees per beega. When after rubbee crops were raised by means of wells, from 2 to 3 Rupees per beega was paid on them, and a trifle less on the huree or third crop.

Measures pursued on the establishment of the Honorable Company's authority.

39. Such being the state of things on the establishment of the Honorable Company's authority at Ahmedabad, in Sumwut 1874 (A. D. 1817-18), and all recorded information, or any defined rule for guidance, totally wanting, the practice of farming out the villages to contractors of any class or description disposed to bid highest for them was resorted to as the surest means of ascertaining their actual resources. The proceeding, however, proves to have been of an injurious nature. The monied contractors, on the one side, believed confidently that additional and concealed resources might be brought to light to their advantage, and the Patels on the other were anxious to preserve what they looked on as their hereditary right—the privilege of engaging direct with the ruling authority for the Revenue to be paid by them; and both parties, regardless of the amount, bid on for the villages, till by this competition they were run up to sums entirely beyond what they were capable of realizing. At the same time the inconvenience and liability to collusion experienced from settlements under the bhag butaee system, where the resident party has such facility of concealing the produce, induced the change to the beegotee as far as it could be extended; and the following general classification of the whole of the villages under the various modes and degrees of assessment will show the extent to which each at the present day prevails in the Purgunna. Six villages, in which rice forms the staple, are assessed by a beegotee, and pay for the khurreef rice crop on uwul land 11 Rupees, on doyum 10, and on soyum 8 Rupees per beega; for the sathee or coarse rice on either class 4 Rupees per beega. The irrigated rubbee wheat and barley on fallow pays 4, and the after, or succeeding one to a monsoon crop, 3 Rupees per beega, without reference to class. The bajeree, jowar, and other dry grain lands, pay from 2 to 3 Rupees per beega.

General Classification of the Villages under the present mode, and degrees of Assessment.

Five villages, wherein rice is the staple, are beegotee, and pay, without distinction of class, for khurreef rice 10 Rupees, and for sathee from 5 to 6 Rupees per beega. The rubbee wheat and barley on fallow pay 4, and the after crop 3 Rupees per beega. The dry grain lands pay from $1\frac{1}{2}$ to 3 Rupees per beega. In two of these villages are paid, in addition, plough veeras from 7 to 12 Rupees. In another, the high dry grain lands are held on khatas, and the bhata producing dry grain pays in kind.

Twenty-nine villages, wherein bajeree and rice are entirely beegotee for the dry crops, 24 are beegotee for the wet, and 5 bhag butaee. The beegotee for khurreef rice on uwul land is from 7 to 9, on doyum from 5 to 7, and on soyum from 4 to 6 Rupees per beega; for sathee it is from 2 to 5 Rupees per beega generally. The beegotees of the dry grain lands are on uwul from 4 to 5, on doyum from $2\frac{1}{2}$ to $3\frac{1}{2}$, on soyum from $\frac{3}{4}$ to 2 Rupees. The beegotees for sankha wheat and barley on fallow are from $2\frac{1}{2}$ to 4 Rupees, and on after crops from $2\frac{1}{2}$ to $3\frac{1}{2}$ Rupees. In the five bhag butaee villages the khurreef wet crops pay one-third and a half, and the rubbee wet crops one-sixth and one-fourth in kind. In ten villages producing tobacco partially from 10 to 12 Rupees per beega is paid. In one village of the Maleeat class, sugar-cane, when grown, pays 22 Rupees per beega; in another of the high goraroo class 13 Rupees is

the sugar-cane beegotee. In 5 villages plough veeras are paid, in addition, of from 2 to 15 Rupees per plough.

Thirty-two villages exhibit the beegotee and bhag butaee systems together. The khurreef rice pays one-third in kind, and sathee from $1\frac{1}{4}$ to 3 Rupees per beega. In twenty-five villages the khurreef dry grains pay beegotees—on uwul from $2\frac{1}{2}$ to $3\frac{1}{2}$ Rupees, on doyum $1\frac{1}{2}$ to 2 Rupees, and on soyum from $\frac{1}{2}$ to 1 Rupee. Rubbee wet crops on fallow pay from 2 to 3 Rupees, and the after crop from $1\frac{1}{4}$ to $2\frac{1}{2}$ Rupees per beega. In seven villages for both the khurreef and rubbee (rice excepted) one beegotee is paid, varying from $2\frac{1}{2}$ to 13 Rupees. In two villages veeras on ploughs, from 5 to 10 Rupees each plough, are paid. In two villages the garden lands pay a sum in the aggregate on the space, without reference to the quantity of land.

Ten villages of a poor description pay generally, without reference to the produce, which is chiefly dry grains, from $\frac{1}{2}$ a Rupee to 2 Rupees per beega.

In two, the rubbee produce pays in kind one-seventh to one-sixth.

Nineteen villages pay by bhag butaee and beegotee combined. Of the khurreef rice, one-third and a half, and of rubbee wheat and barley, one-fourth and one-third, are paid in kind. In eleven of these villages the dry grain Beegotee is from $\frac{1}{2}$ to 2 Rupees. Five villages producing sugar-cane pay for it beegotees of from 15 to 30 Rupees. In one village plough veeras from 8 to 12 Rupees are paid.

Seventeen villages are khatabundee. Both the wet and dry grain lands (the rice crops of four villages excepted, which pay in kind,) pay on khatas, from 10 annas to 8 Rupees per beega. In three villages, veras of from 2 to 16 Rupees are paid on each plough.

Five villages pay by bhag butaee and plough veeras. The wet crops pay one-third share in kind, and dry grain lands are cultivated to any extent per plough on veeras of from 12 to 40 Rupees for each.

Three villages are beegotee, in which beegotees varying from 8 to 14 Rupees are paid on the cultivated land, without reference to the number or nature of the crops.

Nine villages are without defined rates, four of which are newly established, and five are small pooras and gardens.

Eleven villages are held in enam and wuzeefa.

Further illustration of the present System by examples of the Village Daras or Shurestas.

40. To further illustrate the present system, a few examples of the "Daras" or "Shurestas," according to which the collections were actually made while the villages were under Survey, are subjoined. In the village of Bareja, the beegotee was substituted for the bhag butaee, while the Survey was in progress; the contrast of the two will therefore afford a good example :—

The Dara of Bareja in Sumwut 1876, A. D. 1819-20.

On the Government lands of the khurreef rice crops, generally, without reference to the quality of the soil, a half was taken as the Surkar's share, but by means of additional items the proportions of 100 maunds were made 51 maunds and $\frac{3}{4}$ of a seer as the share of the Surkar, and 48 maunds and $39\frac{1}{4}$ seers that of the Ryut. Of the rubbee irrigated crops a third was the Surkar's share, or of 100 maunds, 32 maunds and 22 seers; and the Ryut's share 67 maunds and 18 seers. The Ryut paid extra as "Bhara," or carriage of the Surkar's grain to the city, $1\frac{1}{4}$ Rupee for every 32 maunds, equal to a two bullock cart load; and $\frac{1}{2}$ Rupee on every 100 maunds of the gross produce as "Mangna," so much additional demanded on some occasion by the collecting Officer having become a fixed item. The ordinary dry grains sown in the well and manured lands were subject to a beegotee of

3 Rupees, and in those of the poorer goraroo soil 2 Rupees. On the alienated lands subject to sulamee, various rates, from ½ to 2 Rupees per beega, were paid to the Surkar.

Of the veeras or money taxes, the "Oodhur Veeras," sums levied in the gross amount on trades, or persons not engaged in agriculture, were paid by Buneeas 427 Rupees; Jogees 14; Rebarees 8; and a Borah's Shop 7 Rupees. "Choola Veeras," or taxes on cooking places, were paid by Pateedars and Koonbees at the rate of 2 Rupees each choola; Ganchees, according to their circumstances, from ½ to 3½ Rupees; Golas from ½ to 2½ Rupees; Kacheeas from ¾ to 1 Rupee; Kolees 2½ Rupees; Pugees, Kotwal and Seemara, each 2 Rupees. "Poocha Veeras," or tax on milch buffaloes (Pateedars and Koonbees excepted), at the rate of ½ Rupee for each buffalo by every resident in the village. The Dhers paid 104 Rupees for the privilege of sweeping the village kullee or barn. The tolamnee, or Buneea's perquisite for weighing the grain, resumed and made a fixed item of collection, was 20 Rupees. A tax on the sale of manure, accumulated by graziers of cattle, realized 20 Rupees.

The Dara substituted in 1877 *for the above.*

On the Government lands khurreef rice crops, whether irrigated artificially or not, paid 11 Rupees per beega on uwul, 10 Rupees on doyum, and 8 Rupees on soyum land. If the crop were sathee or coarse rice, on the same lands 4 Rupees per beega were paid throughout. For rubbee wheat and barley after crops on these lands, raised by irrigation, 3 Rupees per beega were paid, and 4 Rupees if no previous khurreef had been grown.

On the alienated lands the original sulamees existed where the proprietors were themselves the cultivators; but the Ryuts of the village cultivating them, instead of the sulamee, paid the suwadeea tax, equal in amount to a third of the Government beegotee for the same kind of crop.

The veeras or taxes in money remained as formerly, excepting that the Pateedars and Koonbees were exempted from the choola veeras, and the collection from the Dhers for the gleanings of the barn ceased by each Ryut housing his own produce.

The Dara of the Village of Kasundra, in Sumwut 1877.

On the Government lands cultivated with sugar-cane in five divisions, composing the principal part of the bhata lands, a beegotee of 30 Rupees was paid; and of 23 and 15 Rupees in two others of inferior soil. The cultivators, at their option, instead of the above beegotee, paid one-third share of the produce on the 30 and 23 Rupees beegotee land, and one-fourth on that paying 15 Rupees, in event of the crop turning out bad. In addition, as "Ruza," or for permission to cut the cane, 3 Rupees per field was paid on the beegotee, and 5 Rupees on the bhag butaee lands. Plantains, according to agreement, paid about 20 Rupees per beega. Khurreef dry grain crops yielded in six divisions half as the Surkar share; together with 2½ seers per maund as seeree, to make up for deficiency of weight, 1 seer per maund for village expenses, and 5 seers on the whole produce of the field as dhura, an item originating in the Buneea engaged in weighing putting into his scales 5 seers of the grain which, added to his own weight of 5 seers, enables him to accomplish his duty more speedily, and the 5 seers from each separate heap remain to him as his personal recompense. In the 7th division, named Kagra Raen, one-third of the khurreef, and one-fourth of the after crops were the Surkar's share, and in addition 1½ seer per maund seeree,

with 5 seers per field as dhura. The poor goraroo lands, producing dry grain crops, were let out to Oopurwareeas or cultivators of other villages at 1 Rupee per beega. Rice crops which were inconsiderable yielded half as the Surkar's share, together with $1\frac{1}{2}$ seer per maund as seeree, and 5 seers per field as dhura.

Of the alienated lands, wanta, with whatever crop cultivated, paid half of the rates of the tulput assessments, together with the full proportion of all the extra charges annexed. All other alienated land, whether classed as free or sulamee, paid 10 Rupees per beega for cultivating sugar-cane and plantains, or, at the owner's option, one-third of the Surkar's share of the produce on similar tulput land. These lands, whether free or sulamee, cultivated with grain crops by others than the owners, paid suwadeeas equal in amount to a third of the tulput assessments.

The veeras or taxes in money were entirely oodhur, or levied in the gross on castes and trades as follows:—Buneeas 200 Rupees, Guraseeas 120, Dyers 13, Tailors 2, Shoemakers $13\frac{1}{2}$, Dhers 136, Lowanas $3\frac{1}{4}$, Carpenters 34, Barbers 30, Brick and Potmakers 54, Jogees 25, Senvas 13, Koonbees 100, Sugurs 20, Sepahees 60, Kolees 134, Blacksmiths 38, and Wagrees 4 Rupees. A tax of 1 Rupee per cent. as mapa was taken on the sale of the produce of the lands generally.

The Dara of Oowarsud, one of the few Villages in which the Assessment by Khatas prevails, in Sumwut 1877.

On the Government lands, without reference to the description of land, Pateedars paid on a khata or share of 40 beegas, at the rate of 5 Rupees per beega for 32, and at $2\frac{1}{2}$ Rupees for 8 beegas: for all they cultivated above this they paid 1 Rupee per beega, but nothing whatever on after rubbee crops. Koonbees on 25 beegas, cultivated with one plough, paid at the rate of 4 Rupees per beega for 8 beegas, at 3 Rupees for 5 beegas, and at 2 Rupees for 12 beegas: for all they cultivated above this they paid 1 Rupee per beega. The Bhats and Brahmuns paid 1 Rupee per beega, and Bheels $1\frac{1}{2}$ Rupee per beega, for the whole of the land they cultivated. Wanta Pateedars and Koonbees (the cultivators of resumed wanta) paid, for uwul or best well and manured land not irrigated, 5 Rupees per beega; for doyum or medium 3, and for soyum or inferior 2 Rupees per beega. In addition to this they cultivated the poorer lands on agreement at 1 Rupee per beega.

The alienated lands, subject to sulamee, paid from 10 annas to 1 Rupee per beega, but Surkar Ryuts cultivating them or the nukra (free) lands, paid the suwadeea, equal to one-third of the usual tulput beegotee.

The veeras on the original tulput portion of the village were these: Koonbees on 8 ploughs paid at 16 Rupees for each; on 6 at 14 Rupees for each; on 5 at 12 Rupees for each; on 7 at 10 Rupees for each—in addition to the beegotees above noticed. Ghanchees paid oodhur or in gross 35 Rupees, Lohars 18, Buneeas 525, Rebarees 20, Koomars 45, Sootars 49, Sonees 4, Mochees 18, Hujams $8\frac{1}{2}$, Dhers 60 Rupees. The veeras on the wanta portion were these:—Wanta Pateedars and Koonbees on $19\frac{1}{2}$ ploughs paid at 10 Rupees for each, besides the beegotees above; also on each house 3 Rupees, each man above 20 years of age 1 Rupee, and for each milch buffalo 1 Rupee. Buneeas in the gross paid 15, Lohars 6, Sootars 8, Koomars 15, Sonees 3, Hujams $3\frac{1}{2}$, Ganchees 2, Dhers 15, Pugree veera 30, and milch buffaloes 30 Rupees.

41. The foregoing examples of the mode of assessment at present prevailing are taken from three of the finest villages in the Purgunna; for

those of a poorer description, where the soil may be of a less productive quality, or sufficient population wanting, the rates necessarily must be lower.

The Nurwas or Bhagdar System existing in only 2 Villages.

Its re-establishment supposed to be difficult, and unacceptable to the body of the people.

There are only two villages in which the nurwas, with an assessment apportioned to each, exist entire, and in about 16 they have been relinquished within the last ten years. The introduction of the beegotee assessment, field by field, having in so great a measure superseded the agency of the Patels, and loosened that combination of interests which is necessary to the existence of the nurwas or bhags, their re-establishment would not only be difficult, but unacceptable to the body of the people. The land is still held under the same permanent and hereditary right of cultivation by the Pateedars and resident Ryuts as formerly; but under the whole system, each individual had to pay merely his share of the assessment, according to the extent of his bhag, and at the same time reaped the full profit arising from any extraordinary industry or expenditure; while under the present system the rate of payment increases in regular proportion with the market value of the superior produce, and this must tend in some measure to check attempts at agricultural advancement, and discourage the outlay of capital for either temporary or permanent improvement. If this defect, however, were remedied, and improvement made a more profitable and more certain adventure, perhaps the chief advantages to be derived from a renewal of the bhags might be more effectually attained under the beegotee system. The bhag butaee mode of assessment, which, generally speaking, is in greatest estimation with the Natives, from its simplicity, and safeguard against overexaction, and perhaps not the less from the facility it affords towards concealment of their resources, has gradually given way to the almost entire introduction of the beegotee. But the beegotees existing in this Purgunna, except in very few instances, where the tax has reference alone to the quality of the soil, operate, instead of a moderate land rent, as a tax levied directly upon the crop itself, and varying in exact proportion with the value of the produce in the market: if, therefore, they are at so high a rate as not to leave an adequate return for the expenses incurred in cultivation, it is evident that no sufficient encouragement is held out for the improvment of the soil, or the introduction of superior produce. That they are so high as to render large profits, which are so essential to improvement in agriculture, almost unknown to the Ryut, the most convincing evidence may be given in the circumstance that excepting for the poorer grain produce, the full Government rent cannot be assessed when the season is in any way favourable. Under an equitable assessment the profits of a good season would enable the Ryut to pay the rent for a bad one, but he is now subjected to a beegotee, equal in amount to the share in kind he would have had to pay for a full crop under the bhag butaee settlement, and in an adverse season is dependent upon such remission as he may be able to obtain; and although this may generally prove ample, his situation is still not so good, at least in his own opinion not so secure, as when he enjoyed the certainty of merely affording to Government the regulated share whatever might be the state of the crop.

Particularly in the Rice Villages.

42. The change from the bhag butaee to the beegotee settlement in the principal portion of the rice villages occurred in Sumwut 1876 (A. D. 1819-20), two years subsequent to the Honorable Company's possession, and was effected during a remarkably favorable season of more than the usual abundance of rain, and succeeding several others of similar description. The rates of 11 Rupees per beega for the uwul or first sort, 10 for the doyum, and 8 for the soyum land, bearing khurreef rice crops, whether or not irrigated by artificial means, are fully equal to the average return of the bhag butaee share of

the produce for a series of good seasons; but they ought to be struck considerably below the average for a series of good and bad together, in order to enable the Ryut to raise the money for the payment of his rent, perhaps long before he can bring the produce to market. The rate of 3 Rupees per beega for the rubbee after crops of wheat and barley, raised by irrigation on either class of land, leaves rather more profit, and there may, besides, be some trifling exemptions from veeras paid under the former system; still, however, the aggregate exceeds what can possibly be paid for a permanency.

43. Without entering expressly on a revisal of the beegotee rates, it is not possible to point out with sufficient exactness for practical use in detail the particular instances in which they operate unfavorably or otherwise, and where remedy should or could be applied. Such a revisal, however, might perhaps be advantageously effected, by commencing with the superior class of villages wherein rice forms the principal khurreef, and wheat and barley the rubbee after crops, and the abatement rates might be made chiefly on the wet lands, with the view to promote the extension of irrigation, and the increase of rice cultivation; while those on the dry might remain as at present, or be regulated together with the veeras as circumstances might dictate. It would, perhaps, be found quite sufficient, with the view of insuring permanency in the rates under both good and indifferent seasons, to fix 9 Rupees per beega on the uwul rice land, 8 Rupees on the doyum, and 7 Rupees on the soyum, reducing the latter a single Rupee, on account of its crops generally being raised without the aid of artificial irrigation, while on the uwul and doyum lands, where after wheat and barley rubbee crops are raised by means of wells, the reduction would be 2 Rupees respectively.

Particularly of Irrigated Produce.

With the view of encouraging irrigation still further, the rates on the wheat and barley, which form exclusively the second after crop, might be levied according to an estimate of the labour and expense attending their irrigation, both of which almost entirely depend on the depth of the water from the surface. Such crops, therefore, which are raised from wells exceeding in depth 45 haths might pay only 2 Rupees per beega, from 35 to 45 haths 2½ Rupees, from 25 to 35 haths 3 Rupees, and below 25 haths 3½ or 4 Rupees per beega, according to circumstances. The heavy first cost of the well, the purchase, wear and tear of the cattle, and the continual labour in working the deep wells, call urgently for the consideration of a classification of this description.

Annual Land Revenue for the last 9 years.

44. The annual Land Revenue for the last 9 years of the Ahmedabad portion of the Duskroee Purgunna, inclusive of extra items, but not the customs of the city, has, according to the accounts of the Kutcheree, been as follows:—

Years.			Paishwa Bhag.	Guikwar Bhag.	Total.
Vikramajet,	or	A. D.	*Rs.*	*Rs.*	*Rs.*
1872	„	1815-16	120412	143109	263521
1873	„	1816-17	143109	147963	291072
1874	„	1817-18	94347	142806	237153
1875	„	1818-19	140721	136101	276822
1876	„	1819-20	141897	146109	288006
1877	„	1820-21	149108	151590	300698
1878	„	1821-22	151632	153389	305021
1879	„	1822-23	158641	158639	317380
1880	„	1823-24	148897	137286	286183

The falling off the last year (1880) is to be attributed to the failure of the rice crops, and the otherwise unfavorable nature of the season; but it seems probable that the Revenue would have kept nearer to its highest standard, had not the operation of the farming system consumed those rightful profits of the Ryuts that would have enabled them to bear up better against their recent distresses.

Rukbas of Todur Mul the only Record of any former Land Measurement.

45. The only records relating to the Duskroee Purgunna in any respect complete, either of early or recent date, prior to the Honorable Company's possession, produced by the hereditary Revenue Officers, are a copy in Guzeratee of the Rukbas of Todur Mul, translated from the Persian Duftur of the Padshah Deewan of Ahmedabad. The information these embrace is merely the aggregates of the land occupied by the village site, the roads, tanks, wells, jungles, trees, nullas, khar, or land impregnated with salt, and the amount of the jerat or cultivation. An English translation of this record, by villages for the whole Purgunna, is given in the Supplemental Statement No. 3, for purposes of curiosity; though the generally altered state of the country, and particularly of the dimensions of the villages during such a lapse of time, renders it but of little practical use. The measurement took place in the year 984 of the Hijree, and notices of alterations in certain villages come down to 1117, corresponding with Sumwut 1777 of Vikramajet, rather more than a century back.

Standard Measure of the Beega used by Todur Mul not known.

On the authority of the Ayeen Akbery the standard for the beega of Todur Mul's measurement is the Ilhaee Guz, stated to be 41 fingers in length, 60 of which being squared make a beega, whose contents are 3,600 square guz. A mean of several guz formed by different persons on these data gives the length at 31 inches, which on the above computation would make the contents of a beega 3,459,600 square inches. But this standard is irreconcileable with the aggregate area of the Purgunna stated in the records themselves (supposing its limits to have remained unaltered), as the following calculation will at once show.

The Survey standard beega contains 3,686,400 square inches; and if that of Todur Mul contains, as above, only 3,459,600, it follows that the beega of the latter is equal to beegas 0 18w. 15ww. of the former. The area of the Purgunna by the Survey Measurement proves to be 3,63,609 beegas, that given by the Todur Mul records is 4,83,408 beegas; from which it would follow that each beega of the latter is equal to only beegas 0 15w. 2ww. of the Survey, or containing 2,783,232 square inches. From this it will appear that no satisfactory data are procurable from which the measure used by Todur Mul can be inferred, and that little practical utility could result from it, even were it exactly known.

Beega of Central India.

46. Sir John Malcolm states the common beega of Central India (vide note, vol. ii. page 35, Central India) to be sixty guz (Ilahee) square, and computes the guz at 32 inches, which corresponds exactly with the Guzerat survey standard guntha or wusa of 5 haths or 96 inches in length, squared 20 times to the beega. He adds :—"But the guz used in land measure is often not more than 28 inches, which reduces the beega to about half an acre." By this latter guz the square beega would contain 2,822,400 square inches.

The Area of the Purgunna by Todur Mul's Records, the Tullatee's estimates, and the Survey Measurements, compared.

47. The following is a comparison of the area of the Purgunna as it originally stood (that is the aggregate of the 144 villages, exclusive of Neekol and Sanoda, and of the city and its pooras,) according to Todur Mul's records, the Tullatee's estimated accounts, and the Survey measure-

ment ; the two latter being in the same standard beega : the area of such villages as are found to be wanting in the Tullatee's estimates have been supplied from the Survey measurements, in order that the comparison may be made on the fairest possible grounds :—

	Cultivated and Arable.	Unproductive.	Total Area.
	Beegas.	Beegas.	Beegas.
By Todur Mul	329676 2 0	153731 18 0	483408 0 0
„ Tullatee's estimates	240430 15 3	102395 15 4	342826 10 7
„ Survey measurement ..	308707 3 1	54902 8 17	363609 11 18

In the enam and wuzeefa villages the Tullatee's accounts and the Survey furnish only the total area : the unproductive land of these, therefore, has been estimated by an average proportion between it and the cultivated and arable.

48. The subjoined table exhibits the aggregate amount of cultivated, purtur, arable waste, and unproductive land in the whole of the Government villages, and will afford a clear idea of the state of tillage throughout the Purgunna at the period of Survey :—

Table of the Cultivated, Purtur, Arable Waste, and Unproductive Land.

	Beegas.	w.	ww.	Acres.	r.	p.
Cultivation	148138	11	14	87060	1	11
Purtur, or land not cultivated during the last season	20724	0	3	12179	1	23
Ditto ditto from 1 to 6 years	31401	8	3	18454	1	32
Ditto ditto for more than 6 years	50414	7	12	29628	1	5
Arable waste never before cultivated ..	39238	13	19	23060	1	22
Disputed land not yet adjusted	672	11	13	395	1	3
Total cultivated and arable land ..	290589	13	4	170778	0	19
Unproductive waste	52177	11	2	30664	1	28
Total land in the Government villages..	342767	4	6	201442	2	18
Area of 11 alienated villages	30117	8	17	17699	3	14
Occupied by the city and its 3 pooras	2441	17	13	1435	0	13
Total area of the Purgunna	375326	10	16	220577	2	10

49. The proportion of the cultivation and purtur ground under wet and dry tillage, in the Government villages, is shown below :—

Proportion of Wet and Dry Cultivation.

	Cultivated.						Purtur.					
	Beegas.	w.	ww.	Acres.	r.	p.	Beegas.	w.	ww.	Acres.	r.	p.
Wet	36117	16	11	21226	1	4	5908	2	0	3472	0	26
Dry	112020	15	3	65834	0	7	96631	13	18	56789	0	35
Total	148138	11	14	87060	1	11	102539	15	18	60262	0	21

50. Under the Statements Nos. 2 and 3 will be found in detail the various productions of each village, as ascertained from actual measurement. The following abstract exhibits separately the aggregate of staple crops, and such as are in any degree of superior order :—

Table of Produce.

	Beegas.	w.	ww.	Acres.	r.	p.
Bajeree and jowar, with kuthol or the pulse crop (ureed, wal, chora, guwar, sun, mug, mut, &c.) intermixed ..	109324	4	2	64249	1	7
Grains and other produce of minor order, chiefly dry, such as baota, buntee, kodra, chuna, toour, tul, dewula	3934	15	6	2312	1	30
Rice (dangur and sathee), chiefly irrigated	25817	5	10	15172	2	29
Wheat, barley, kang, cheena, in fallow land, irrigated rubbee	4904	9	10	2882	1	13
Sugar-cane	985	14	11	579	1	9
Tobacco	571	15	6	336	0	3
Cotton (kupas)	933	9	0	548	2	13
Kusoombee (dye)	59	1	7	34	2	34
Garden produce generally	1042	0	10	612	1	22
Fallow land	565	16	12	332	2	5
Total cultivation	148138	11	14	87060	1	11
Second or after crops of wheat, barley, kang, cheena, on the above lands..	11050	9	12	6494	1	10
Third or after crops of kang, cheena, &c.	301	7	3	177	0	17

51. The crops in any respect superior, with the exception of rice, it will be observed, are of exceedingly small amount; but their increase is rapidly advancing, particularly that of sugar-cane, the extended culture of which may be expected still further under such improvement in the circumstances of the people as may enable them to risk the heavy expense it involves. Any favourable change in the price of gol (raw sugar) would cause a great increase in this species of cultivation, as the lands, where good water is procurable, are equally adapted to the crop with the bhata, though its growth in the latter is attended with comparatively trifling expense. The rise which has taken place in the price of indigo of late years has occasioned its introduction again into many villages that owe their early prosperity to it; and its culture deserves particular encouragement, from the tendency it has to improve a poor soil. Tobacco is of limited growth as yet, but promises to become a profitable crop as the general prosperity of the Purgunna advances.

Indigo deserving of attention.

52. The Revenue Survey has ceased to embrace an investigation into alienated tenures, and furnishes only an indiscriminate measurement of the whole of the lands of the villages; but with a view to assist in judging accurately of the general state of the Purgunna, a statement (vide Supplemental No. 1) has been framed, exhibiting the amount of alienated land actually held by each several class of landholders; and the following table shows the aggregate for the whole Purgunna:—

Table of Alienated Lands, as found by the Survey in possession of each class of people.

	Beegas.	w.	ww.	Acres.	r.	p.
By Koonbees, Pateedars, and Ryuts; the lands being chiefly vechaneea and gureneea	10271	9	19	6036	2	1
By Buneeas and Sahookars, entirely vechaneea and gureneea	1948	9	3	1145	0	15
By Brahmuns, Khutrees, &c., chiefly pusaeeta, vechaneea, and gureneea..	26344	5	14	15482	1	25
By Desaees and Muzmoodars, chiefly pusaeeta	239	14	14	140	3	22
By Rajpoots and Guraseeas, chiefly wanta	25663	12	0	15082	1	19
By Syuds, Sepahees, and other Moosulmans, chiefly wuzeefa	11680	15	8	6864	2	37
By Kolees, Pugees, &c., chiefly pusaeeta and chakureea	15879	19	11	9332	2	13
By Gosaeens, Byraghees, Timples, &c., chiefly pusaeeta	2389	11	3	1404	1	12
By Wuswaeeya, and village establishment generally, chiefly chakureea ..	3921	7	9	2304	2	11
6 Wuzeefa villages, held by Syuds, &c., not including Butwa	16391	3	0	9632	3	39
4 Enam villages, held by Gosaeens ..	13301	8	16	7817	0	30
1 Ditto ditto held by Brahmuns..	424	17	1	249	2	29
Total alienated	128456	13	18	75493	1	19
Government unalienated lands of every description	244427	19	5	143649	0	18
Occupied by the city and its pooras ..	2441	17	13	1435	0	13
Total area..	375326	10	16	220577	2	10

Tullatee's Accounts of the Alienated Lands.

53. According to the Tullatee's accounts for the years 1819-20, as given in detail in General Statement No. 4 under separate tenures, the alienated lands bear the following proportion to the Government Tulput:—

	Beegas.	w.	Acres.	r.	p.
Alienations from the tulput under vechaneea, gureneea, pusaeeta, runwateea, buthamneea	76256	11	44815	2	16
Wuzeefa	6242	16	3668	3	18
Wanta	12625	10	7419	3	31
Total alienations in Government villages .	95124	17	55904	1	25
11 Enamee and Wuzeefa villages, entirely alienated	26532	1	15592	3	0
Total alienated....	121646	18	71497	0	25
Tulput unalienated	227283	16	133573	2	12
Total area.....	348940	14	205070	2	37

In both the above statements Butwa is treated as a Government village, for the reason stated in the commencement of this report, and not included with the 11 alienated villages.

Table of the Population.

54. The population of the Purgunna, exclusive of those residing within the walls of the city, according to a census taken during the progress of the Survey, with great minuteness, and of which a detail is given in Statement No. 6, proves to be as follows:—

	Males.	Females.	Total.
Koonbeees, Lewa and Kurwa	10584	7640	18224
Kolees	9018	6759	15779
Rajpoots	2431	1856	4287
Brahmuns	2940	2319	5259
Bhats, Charuns, and Veeras.....	1222	796	2018
Buneeas.....	2333	1795	4128
Artizans.....	3349	2673	6022
Dhers, Bungees, &c.....	3559	2740	6299
Various other castes.....	2868	1946	4814
Total Hindoos....	38304	28524	66828
Total Mahomedans.	2037	1618	3655
	40341	30142	
Slaves.....			442
Total			70925

The number of houses occupied by this population is 21,721 ; the whole are tiled, about three-fourths thoroughly brick built, and the rest with walls of mud. If the inhabitants of the pooras immediately around the city be excepted, the whole may be considered agricultural : the portion engaged in manufactures is insignificant, and the Buneeas have few dealings beyond those connected with the Patels and Ryuts.

Population of the City considered independent of that of the Purgunna.

55. The number of the houses within the walls of the city, according to an account taken as accurately as was practicable during the progress of the Survey, is 29,219, which, calculating 3½ souls to each house, gives a population of 1,01,675, and, added to the whole amount outside, makes the population of the city and Purgunna together 1,72,600 souls. But the population of Ahmedabad, as the capital of the Province, ought to be looked on as unconnected with the Purgunna, more especially as the pursuits of so small a portion are agricultural.

Cattle and Stock.

56. The amount of cattle and stock generally (an account was taken with great care together with the census) was found to be as follows :—20,636 oxen and calves ; 12,501 cows and calves ; 20,134 buffaloes and calves ; 2,918 goats and kids ; 150 horses ; 2,537 carts ; 7,714 ploughs.

People—Koonbees.

57. Of the Koonbee population three-fourths are of the Lewa sect, and one-fourth of the Kurwa. One-half or rather more are Pateedars, enjoying hereditary rights in their own villages, with peculiar privileges in the caste in general; and the remainder are Koonbee Kheroots, many of whose families are of such antiquity in their present residence as to have no tradition of any other. These enjoy the full hereditary right of cultivating perpetually, which descends to their children in exactly similar manner to the Pateedars, as long as they continue permanent residents of the village, but is sacrificed by absence even of a single year ; while the right of the Pateedar is respected for an indefinite period, such as his brethren may deem just, and suited to the occasion. Among various other distinctions which exist between these two grades in the caste, the Pateedar will receive a daughter of the Koonbee Kheroot, but will not give one to him, in marriage; and where both are established in the same village, the whole of the "Weth," or gratuitous performance of public service, devolves on the Koonbee. The whole body of the Koonbee caste possesses 3,385 ploughs, 1,026½ wells (chiefly on the tulput, the property of the State), and it is estimated cultivate about 64,926

beegas out of 1,48,138 beegas, the aggregate of the cultivated lands according to measurement. If a similar estimate be made of the portion of the Revenue of the Purgunna which is paid by this valuable class of people, the proportion will be still more remarkable; for they not only raise the richest produce, but pay higher rates for each separate description of it than any other body of cultivators.

Kolees.

58. The Kolees, who form between a fourth and fifth of the population, are chiefly of the Tulubda class, the branch to whom agricultural habits are most consonant. A small portion of them enjoy Pateedaree rights, similar, as far as concerns their own caste, to the Koonbees; and although a few only are employed exclusively in agriculture, yet most of those retained on the village establishment as Pugees, Kotwals, and for chakureea purposes generally, cultivate their own lands to the extent of their means in stock. Notwithstanding the habits of these people have always been at variance with agricultural pursuits, they are not insensible to the advantages arising from an industrious life: idleness with them springs much from an habitual want of confidence in their own powers and skill in husbandry, but they are free from that rooted prejudice against laborious exertion which exists amongst the higher castes. A salutary practice of assessing them more lightly than the Koonbees prevails generally, and they seem to require it from their want of skill. It frequently occurs that Koonbees in tolerable circumstances, who have not male relations or dependants of their own caste, hire a Kolee to assist them in cultivating the land, and to afford, at the same time, protection to their house and property. The large proportion of these people settled here must contribute greatly to the safety of the Purgunna, exposed as it is, and always must be, to inroads from the same class in the Guikwar Purgunnas in a North and Westerly direction. The advantage of employing them to the utmost in agricultural pursuits is very evident; as, by placing them beyond the reach of the vicissitudes of seasons, to which this part of the Province is so subject, they are less likely to countenance the depredations to which absolute want so frequently compels their neighbouring brethren. Numerous instances have occurred in the progress of the Survey, where they have expressed the strongest desire to erect wells, but they almost invariably require assistance in money: gunwuts might be granted on such favorable terms as to enable them to raise the requisite funds.

Rajpoots.

59. Rajpoots, of whom one-third are Guraseeas, form an inconsiderable portion of the population, and they are by no means in flourishing circumstances. A few of them are Patels and Pateedars. The predominating sects of the caste are Waghelas, Doreeas, Purnars, and Chowans.

Brahmuns.

60. The Brahmuns are of small number, and generally poor; gaining a subsistence by performing the religious offices of the villages, and cultivating a portion of their own lands, but little or none of those of the Government. A few lend money, nominally at the established rate of 1 per cent. per month, but in reality exceeding by twenty-five or fifty per cent. the legal amount.

Bhats and Charuns.

61. The Bhats and Charuns, besides cultivating their own lands, which are mostly exempt from any payment, lend money on interest, but are seldom employed as securities, which to them in former times was so profitable a source of subsistence. The Veas cultivate and trade, and in the former capacity are more useful subjects than the Brahmuns. They wear the "Junoee," but are not acknowledged as Brahmuns.

Buneeas.

62. The Buneeas, of whom there may be from 2 to 10 in each village, are the Sowkars and general men of business to the agriculturist, whom they retain mostly in a state of interminable dependence, and entirely at their mercy for the correctness of their running accounts. They are chiefly of the Shrawuck sect.

Artizans.

63. The artizans are of respectable amount, keeping pace fully with the present wants of the community; and the numbers of the Dhers and other low castes are in due proportion.

Mahomedans.

64. The Mahomedans are of small number, not exceeding a nineteenth of the whole population, and are mostly in indigent circumstances. The attractions of the city draw off most of the wealthy, and those who are not dependent on the cultivation of the soil for a subsistence.

Slaves.

65. The slaves form so very inconsiderable a portion of the population that little notice has been taken of them: they are principally domestic servants in the houses of the richer Pateedars and Sowkars, and are treated rather as members of the family than as purchased slaves.

Tables of the aggregate and proportional Resources of the Purgunna.

66. The aggregate of the resources of the Purgunna is exhibited in the following Table 1, and the proportions to a square mile and to a British statute acre in Table 2:—

No. 1.

Square Miles.	Villages.	Houses.	Souls.	Black Cattle.	Houses.	Sheep & Goats.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.
									Rupees.
342½	146	21,721	70,925	53,271	150	2918	7714	2537	2,95,666

No. 2.

	Houses.	Souls.	Black Cattle.	Ploughs.	Carts.	Revenue.
1 Mile ...	63	207	156	22½	7¼	863 *Rs.*
						Rs. q. r.
1 Acre	1/17	1/3	1/4	1/28	1/88	1 1 39

In these tables, the population is always calculated exclusive of the inhabitants of the city itself; the addition of which would swell the proportions to an extreme amount, and, for the reason stated above, would be fallacious; but the population of the three pooras, Suruspoor, Goomteepoor, and Rajpoor, is included; because a large portion of them is agricultural, and cultivate the lands of the deserted villages around them, and the portion that is not will counterbalance the small number of cultivators resident within the walls of the city.

Table of the Average Revenue per Beega and Acre.

67. The following shows the average proportion of net Land Revenue (taking the mean of the last six years) paid per bega and acre in Rupees, and per acre in English money, estimating the Rupee at 2*s.* 3*d.* :—

On total Cultivated Land, Government and Alienated.	On Government Cultivated and Arable Land.	On total Cultivated and Arable Land, Government and Alienated.	On the Total Area.	
Rs. q. r.	*Rs. q. r.*	*Rs. q. r.*	*Rs. q. r.*	
1 3 33	1 2 3	0 3 74	0 3 17	Per beega.
3 0 48	2 2 27	1 2 36	1 1 39	Per acre.
£ s. d.	*£ s. d.*	*£ s. d.*	*£ s. d.*	
0 7 $0\frac{1}{4}$	0 5 $9\frac{1}{4}$	0 3 $6\frac{3}{4}$	0 3 $0\frac{1}{4}$	Per acre.

The amount of cultivated land not being ascertained in the 11 wuzeefa and enam villages, it has been added by an estimated proportion.

Other Proportions and Averages.

68. The alienated land is equal to rather more than one-third, and the unproductive land to nearly one-seventh, of the total area, exclusive of the site occupied by the city. The proportional numbers of the various classes forming the whole population are in twentieth parts, as follows, viz :—Koonbees $\frac{4}{20}$; Koolees $\frac{4\frac{1}{2}}{20}$; Brahmuns and Bhats $\frac{2}{20}$; Buneeas $\frac{1\frac{1}{2}}{20}$; Rajpoots $\frac{1}{20}$; Artizans $\frac{1\frac{1}{2}}{20}$; Dhers $\frac{1\frac{1}{2}}{20}$; Moosulmans $\frac{1}{20}$; various other castes $\frac{1\frac{3}{4}}{20}$; Slaves $\frac{1}{20}$. The males exceed the females in the ratio of about 4 to 3; the number of souls to each house averages about $3\frac{1}{4}$; to each plough there are acres 11 1r. 5p. of cultivated land; and the Revenue on each plough averages Rs. 38-1-31, or £ 4 6*s.* $2\frac{5}{4}$*d.*

Table contrasting the Duskroee with other surveyed Purgunnas.

69. The following table exhibits all the above particulars, contrasted with those of other surveyed Purgunnas as yet completed by the Revenue and Topographical Survey of Guzerat :—

Purgunnas.	1	2	3	4	5	6	7						8								
							Resources to one Mile.						Net Revenue per Acre, calculated on the Net Revenue shown in Column 5.								
	Number of Villages.	Total Square Miles.	Proportion Unproductive.	Proportion of the Productive Land Alienated.	Net Revenue.	Percentage of Village Charges on Gross Revenue. (e)	Houses.	Souls.	Black Cattle.	Ploughs.	Carts.	Revenue.	On Total Cultivated Land.			On Total Cultivation and Arable Waste.			On Total Area.		
			Per cent.	Per cent.	*Rupees.*	Per cent.						*Rupees.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*
Duskroee (a)	146	342·54	15·26	33.84	295666	8·96	53	207	156	22½	7¼	863	3	0	48	1	2	36	1	1	39
Broach (b) (Broach Collectorate.)	162	429·77	18·06	21·49	1153817	9·80	53	228	....	....	..	2684¾	5	1	92	5	0	46	4	0	77
Unklesur (Broach Collectorate.)	50	134·90	31·87	26·45	200546	14·01	45	191	130	20½	..	1486⅓	4	2	56	3	1	72	2	1	29
Hansot (Broach Collectorate.)	51	142·25	48·01	34·83	173745	16·87	27	119	103	18¼	..	1221½	4	0	26	3	2	68	1	3	63
Jumboosur (Broach Collectorate.)	82	337·15	38·65	32·66	334386	11·30	37	138	73	12½	7	991¾	2	3	76	2	2	10	1	2	19
Amod (Broach Collectorate.)	42	220·14	49·48	40·29	80354	24·97	18½	74	48	8	4	365	1	2	40	1	0	91	0	2	28
Dehej (Broach Collectorate.)	10	55·46	54·98	35·95	14550	27·20	18	70	41	8	4	262¼	1	0	41	0	3	64	0	1	63
Oolpar (c) (Surat Collectorate.)	143	322·83	44·77	24·42	483861	18·90	32	147	91	15	8	1498¾	5	2	50	4	1	37	2	1	36
Parchol (d) (Surat Collectorate.)	35	110·54	62·62	11·89	149033	10·10	43	180	97	15	10	1348¼	10	0	10	5	2	54	2	0	42

(a) Exclusive of the ground occupied by the city of Ahmedabad, but inclusive of all without the walls, and also of the 11 alienated villages.

(b) Exclusive of the fort of Broach, but inclusive of its suburbs, which are distinct villages. From this and all the other Purgunnas of the Broach Collectorate the alienated villages are excluded.

(c) Inclusive of 4 alienated villages.

(d) Exclusive of 3 villages held by the Sucheen Nuwab.

(e) The village charges in the Duskroee Purgunna include the chora khurch, or contingent expenses of the village, the Muzmoodar's and Desaee's fees, Guras payments, dhurmada, or charitable donations for the support of temples and religious persons, the Tullatee's pay, and occasionally an enam, or honorary present, to the Patels; but the various items included under this head differ much in the several Purgunnas. The per-centage is calculated on the total amount of these charges, added to the net Revenue of the preceding column, thereby making up the gross sum actually collected.

N. B.—The proportion alienated shown in column 4 is calculated as follows:—in the Duskroee Purgunna on the measured amount, according to possession; in the Broach, Unklesur, and Hansot on the amount settled by the Revenue Commission; and in all the other Purgunnas on the amount stated in the Tullatee's estimated accounts and Muzmoodar's records. The net Revenue in column 5 of the Duskroee, Oolpar, and Parchol Purgunnas is taken from the mean of 6 years; for the Purgunnas of the Broach Collectorate it is taken for the single year 1817-18, as given in Lieutenant Colonel Williams' Report.

Want of a revised principle of Assessment, which shall increase the interest of the Ryut in the permanent improvement of his Fields.

70. In conclusion, it may be stated that in this Purgunna such a principle of assessment is needed as shall create in the Ryut a greater interest than he can be supposed to possess in the permanent improvement of the soil: of any superior kind of produce that he may be the means of introducing on his fields a larger portion should be reserved to him than he can enjoy where the assessment increases in exact proportion with the value of the crop. This would tend to rectify the difficulty so extensively felt of procuring capital for the purpose of effecting improvements, except at such a high rate of interest as is sufficient to crush every speculative attempt. The Tuckavee loans by Government very defectively supply this want, both from the high interest taken, and the early collection of the principal, two things disconsonant with the required purpose. Tuckavee is well adapted to supply the want of a poor tract of country, where the chief object of such an advance is to enable the Ryut to purchase seed for his fields, and applies particularly to wheat countries, where the quantity used, and high cost of seed, are of such serious consideration, that without some aid the process of cultivation could hardly go on. But where capital is required for the purpose of effecting expensive works for the extension of irrigation, and of purchasing cattle and agricultural stock, the return of profit from which must necessarily, though sure, be slow, Tuckavee is wholly useless. A revisal of the rates, and a liberal system for granting gunwuts, can alone remedy this great want. The high rate of interest demanded by brokers and money-lenders, and the miserable state of dependence in which they hold the Ryuts, render it evident that any arrangement that might supercede their influence would be a great blessing to the country. Could the assessment be so awarded as to leave a liberal profit to the cultivator, and could something after the nature of a savings' bank for the special use of the Ryuts alone be instituted and guaranteed by the Government, affording a higher interest on deposits than on loans (as for example 8 per cent. on the former, and 4 per cent. on the latter), the condition of this valuable class of subjects would be improved by the introduction of more provident habits, and ultimately with their own means alone they might be brought to supply every agricultural want. If such an arrangement, under proper superintendence, could be effected, the management and control might be placed under the guidance of a certain number of the Patels of best character in the district, to be elected by the heads of villages. Some distinguishing mark among the agriculturists is greatly wanted under the present system of assessment, and any responsible office to which character would attach in the eyes of their own community would be greatly appreciated; and a body might thus be formed, to watch over the prosperity of the Purgunna, from amongst that class who are naturally most interested in its welfare.

Subjects embraced by the Survey.

71. The foregoing observations, tables, and statements touch on every subject to which the Survey has reference, and further information will be found in the detailed documents immediately relating to each. As an accompaniment to the Topographical Survey and minute Land Measurement, which form the immediate employment of the Department, brief remarks are furnished relating to the former and present constitution of the villages, the state of their tillage, soil, and productions, the modes and rates of their assessment, with such other matter of a Statistical and Revenue nature as may come under observation in the progress of the Survey. Beyond this, the particular attention of the Officers of the Survey is given to to the adjustment of the boundary disputes between the villages, which are numerous, and their settlement of great importance. Their existence

Adjustment of Boundary Disputes.

keeps large quantities of valuable land out of cultivation, and affords an interminable source of contention, which, even under the great efficiency of the District Police at the present day, cannot always be prevented from breaking into feuds, and sometimes terminating in bloodshed. The minute investigations into these disputes which must necessarily take place from the Survey of the respective claims, and the information elicited during the progress of the work generally, give a facility to the Officers of the Survey of effecting their adjustment, which cannot be gained by any other means. Of this the parties are so sensible that they exhibit the most anxious desire to avail themselves of the opportunity of a scrutiny by European agency which is thus offered, but which it is hardly probable can again occur. The mode adopted for adjusting these disputes is by arbitration, and the parties are previously bound by Razeenama to abide by the final result, whatever it may prove. The Surveying Officer, in the presence of the parties concerned, confirms the proceeding in the most decisive and marked manner ; and the land measurement follows in immediate succession to regularly register the ground in the Survey records of the village to which it has devolved. The land in question is almost invariably the unalienated property of the State, and individual rights of property are seldom involved. Possession of actually cultivated land is respected as matter beyond the powers of the Survey to notice ; and the hereditary immunities of the Patels and Ryuts are on no occasion interfered with.

Documents furnished by the Survey.

72. The documents which the Survey furnishes :—

A "Kurda," or detailed register of the lands, field by field, of each of the Government villages, transcribed from the original "Chopra," or field book—in Guzeratee only.

Abstract Statements for each of the Government villages of the lands, produce, population and stock ; together with the "Dara," or system and rate of assessment, and the receipts and disbursements of Revenue for a given year—in English and in Guzeratee.

General statements, in English and Guzeratee, formed from the above, for the whole Purgunna, comprising—

No. 1.—The amount of the several descriptions of land in each village, classed under the different varieties of soil, according to measurement.

No. 2.—The different descriptions of produce forming the first crop, under which the lands were found at the period of Survey.

No. 3.—The second and third crops, the wells in use and decayed, with an estimate for repair of the latter, and the trees.

No. 4.—The amount of the several descriptions of alienated land, as estimated in the Tullatees' accounts for 1819-20 A. D., together with the gross amount of alienations by measurement, contrasted with the area and the Revenue.

No. 5.—The assessments, disbursements, and total estimated proceeds, according to the Tullatees' accounts for 1819-20 A. D.

No. 6.—The houses, and population according to castes and occupations, cattle, ploughs, carts, &c.

No. 1 *Supplemental.*—The amount of alienated land held by each class of people, according to possession at the period of Survey. Annexed are average rates in Rupees and English money.

No. 2 *Supplemental.*—Corresponding statement to No. 1 in British statute acres.

No. 3 *Supplemental.*—Comparison of the Tullatees' accounts with the Survey measurements, and the ancient rukbas of Todur Mul.

A volume, containing authenticated copies of the Razeenamas taken during the progress of the Survey for the adjustment of boundary disputes—in Guzeratee only.

Remarks on the general condition, tillage, assessment, and resources of each village, and a general report on the whole Purgunna—in English only.

Topographical plans of the whole of the villages, both Government and alienated, on a scale of 5 inches to 1 mile, chiefly surveyed, and the copies from the European originals, drawn by Native Surveyors—in English only.

A reduced plan of the whole Purgunna, formed from the above large plans, on a scale of $1\frac{1}{4}$ inch to 1 mile; exhibiting the situation of the villages, with their boundaries, and a complete delineation of the face of the country—in English and Guzeratee; the latter being a copy of the European original, drawn by Native Surveyors, and the names written in the Balbooth character.

The Measurements placed at once at the disposal of the Revenue Officers.

73. Much time has necessarily been occupied in arranging and completing these several documents; but on the close of the land measurement of each village, the result was at once placed at the disposal of the Native Revenue Officers of the Collectorate, by copying on the spot the measured quantity of each field and arable portion of land into the Tullatee's kurda. At the same time a duplicate of the original chopra, in which the calculations were made by distinct persons, and by such a reversed process as that one should be a proof to the other, was formed and prepared with the greatest care for the use and reference of the village Patels and Ryuts.

Results of the Survey.

74. It is not conceived necessary to bring the particular results of the Survey more prominently to view, as the general statements of the Purgunna afford such extensive detail. It may, however, be noticed, that the measurement of the Survey ascertains the total aggregate of cultivated and arable land to exceed the previous estimate of the Tullatees by beegas 50,262 7w. 9ww.; the unproductive land, again, falls short of former accounts beegas 49,868 13w. 13ww.; while the total area, which includes the alienated villages, is greater by beegas 22,466 2w. 3ww. There have been adjusted during the progress of the Survey 115 boundary disputes, and of the 9 still remaining unadjusted accurate information, and an opinion as to the best mode of settlement, are given in the Remarks.

Time occupied, and Officers employed upon it.

75. The Survey of the Duskroee Purgunna was commenced in April 1820, and the field work completed in December 1822. During the period that has since been occupied in finishing and preparing the documents, the field work of 2 other Purgunnas (Dholka and Puranteej) has been brought to a close, and the after work partially completed. The Officers of the Department who assisted in its execution were Lieutenant Dumaresq, of the 8th Regiment, and Lieutenant Melvill, of the 7th Regiment Native Infantry.

(Signed) J. CRUIKSHANK, Captain,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 30th September 1825.

THROUGHOUT the whole of the Ahmedabad Collectorate, and the Eastern Zilla North of the Muhee, lands are measured and accounts kept in Beegas, Wusas, and Wiswusas: (20) twenty Wiswusas form (1) one Wusa, and (20) twenty Wusas (1) one Beega; the Beega, like the English acre, being entirely a square measure. The Guntha or rod, by which land measurements are made, is computed at (5) five Haths; and (20) twenty such Gunthas, or (100) one hundred Haths, are the length of one side of a Beega.

Prior to the Survey no common standard for the length of the Guntha or of the Hath existed; but after a careful and thorough investigation and inquiry by the late Lieutenant Colonel Williams, the length of the Guntha was determined and fixed, upon the average of rods received from ten different Purgunnas, at (96) ninety-six inches, or (8) eight feet exactly, and the length of the Hath at ($19\frac{1}{5}$) nineteen and one-fifth inches.

The Beega, therefore, now considered as the Government Standard Beega for the Zillas of Ahmedabad and Kaira, contains (25,600) twenty-five thousand and six hundred square feet, the Wusa (1,280) twelve hundred and eighty square feet; and the Wiswusa (64) sixty-four square feet. As an English statute acre contains (43,560) forty-three thousand five hundred and sixty square feet, it follows that (1) one such Standard Beega is equal to (5,877) five thousand eight hundred and seventy-seven decimal parts of an acre; or that one acre is equal to (beegas 1 14w. 0·62ww.) one Beega, fourteen Wusas, and sixty-two decimal parts of a Wiswusa.

The Government and the alienated lands are measured by the same common standard.

TABLE OF LONG MEASURE.

Inches.		Feet.		Hath.					
19·2 dcls.	=	1·6 dcls.	=	1					
96	=	8	=	5	=	1 Guntha.			
1,920	=	160	=	100	=	20	=	1 Side of a Beega.	

TABLE OF SQUARE MEASURE.

Square Inches.		Square Feet.		Square Yards.		Wiswusa.						
9,216	=	64	=	7·11 dcls.	=	1						
184,320	=	1,280	=	142·22 dcls.	=	20	=	1 Wusa.				
3,686,400	=	25,600	=	2,844·44 dcls.	=	400	=	20	=	1 Beega.		
6,27· ,640	=	43,560	=	4,840	=	680·62 dcls.	=	34·03 dcls.	=	1·70 dcls.	=	1 Acre.

REPORT

ON THE

PORTION OF THE DUSKROEE PURGUNNA SITUATED IN THE KAIRA COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Situation and Boundary.

When the Kharee river was adopted as the line of division between the newly formed Collectorate of Ahmedabad and that of Kaira, a portion of the Duskroee Purgunna was cut off, as lying on the East side of the line, and assigned to the latter District. This portion comprises 35 villages, which occupy a narrow strip of land between the Meswa and Kharee rivers, extending 18 miles in extreme length from North-east to South-west, and generally about 7 miles in breadth from East to West. Several, however, are detached from the main body: 3 are situated to the Southward, among the Dholka villages, but still touching on the Ahmedabad Duskroee, and therefore only detached as respects the Kaira portion of the Purgunna. The lands of Sadra (a distinct Kusba) intervene between those of Pursantaj and Sankej; Duntalee and Bhaner lie at a considerable distance among the Matur and Muhoonda villages; Hooka and Vehelal are separated from Jhanoo by the Gaekwar village of Kuradura; and again, Bawura, of the Gaekwar District, is insulated among the Duskroee. The Purgunna, generally speaking, is bounded on the West by the Ahmedabad Duskroee, on the North and North-east by the Gaekwar Districts, and on the South-east by the Matur and Muhoonda Purgunna.

Remarkable Features of the Country.

2. The face of the country in the tract principally occupied by the Duskroee villages is not so uniformly level as the Province of Guzerat is usually observed to be. In the Northerly part, sandy rises of considerable height, and more gentle undulations, diversify the prospect; and the confines of the rivers exhibit a wild and dangerous aspect. In the neighbourhood of most villages the fields are enclosed with hedges, and often adorned with fine fruit trees, which gives a pleasing character to the country, and at the same time shows its fertility, and the care bestowed upon it. To the Southward the country becomes flat and low, much intersected with nullas, tanks, and swamps; and, though of a most valuable nature, often of a most dreary appearance. The villages are well built, and thickly peopled, and have all the

appurtenances and conveniences attached to them which mark thriving and well-constituted establishments. The banks of the Meswa, high up about Hooka, are steep and bold; but they decline as the country falls, and as they approach Kaira become insignificant. The same observation holds of the Kharee: this stream is very narrow, and at the time of the Survey was throughout the year so deep as to render fords a matter of observation and inquiry. Experience, however, has since shown that the flow of water is not to be depended upon. The bed of the Meswa is sandy, and sometimes slightly rocky, but in most places easily fordable. It is in breadth about 50 yards, and roads down the bank are always to be found practicable for carts or other wheeled carriages. The Bagh Tekra, an eminence on the Eastern side of the Meswa, and on the boundary of Roheesa and of the Purgunna, derives its name from the number of tigers with which it was formerly infested, and which are still often found about it.

Number of Alienated and of Government Villages.

3. Of the 35 villages composing this Purgunna, 2 are held as wuzeefa by Syuds, viz. Kojar on the Kharee river near Kooburtul, and Sarsa, not far from the town of Kaira; the proprietor of the latter is Emam Bukus, of Ahmedabad, the twelfth in direct descent from the celebrated Shah Alum. Sarsa pays a quit-rent of 51 Rupees, but Kojar is exempt from any payment. The remaining 33 villages are held exclusively by Government.

Superficial Area of the entire Purgunna.

4. The superficial area of the entire Purgunna is as follows:—

	dcls.	
Square miles	100·49	
	r.	p.
Statute acres	64317	0 38
	w.	ww.
Standard beegas	109439	16 2

Area of the Government Villages alone.

The superficial area of the Government villages, to which alone all the following statements and tables must be understood to apply, is as follows:—

	dcls.	
Square miles	94·59	
	r.	p.
Statute acres	60540	1 38
	w.	ww.
Standard beegas	103013	8 13

Cultivated, Waste, and Unproductive Lands.

The part of the above area which is actually under cultivation, and that in a waste or neglected state, as also that which is unproductive, and, from its situation or nature, can never be available for tillage, appear below:—

	Beegas.	w.	ww.	Acres.	r.	p.
Cultivation	53011	3	14	31154	1	26
Purtur, or waste formerly cultivated	18392	0	2	10808	3	22
Arable waste, not formerly cultivated	13410	0	1	7880	3	38
Land in dispute, chiefly arable	92	5	0	54	0	34
Total arable lands	84905	8	17	49898	2	2
Unproductive lands	18107	19	16	10641	3	36
Total area of the Purgunna	103013	8	13	60540	1	38

The Soil.

5. Goraroo is the predominating soil; but there is much land of a partially black nature, which is converted into rice ground, and irrigated chiefly from wells: thus, though bajeree is the staple crop as far as regards quantity, rice is the most valuable, and of most importance. The rice villages extend from Heerapoor and Burodra South to the limit of the Purgunna, including also the detached villages to the South of Lalee, which are the finest and the best. Those to the Northward may all be regarded as

goraroo. The proportional quantities of land classed as goraroo and as kaurda are these :—

	Beegas.	w.	ww.	Acres.	r.	p.
Goraroo....	65847	4	15	38698	0	15
Kaurda	19058	4	2	11200	1	26
Total....	84905	8	17	49898	2	2

The Products of the Soil.

6. The productions of the soil, and the relative extent to which the cultivation of each of the principal descriptions of crop is carried, will best be shown by the following table of the lands as cultivated when they came under Survey :—

	Beegas.	w.	ww.	Acres.	r.	p.
Bajeree and jowar, with pulse crops	31560	0	11	18547	2	27
Dry grains of a poor and minor kind.	6198	4	16	3642	2	26
Rice (chiefly irrigated)	11317	14	6	6651	1	18
Barley, wheat, &c. grown in fallow land, and irrigated	1188	3	11	698	1	5
Garden vegetables	41	17	14	24	2	18
Kusoombee (used as a dye)	6	15	7	3	3	36
Sugar-cane	9	4	5	5	1	26
Tobacco	516	7	14	303	1	36
Cotton	8	11	8	5	0	5
Opium (the poppy flower) irrigated .	3	12	5	2	0	19
Deewula, cheena, and sursoo	188	8	16	110	2	39
Indigo	90	12	18	53	1	3
Fallow land intended for cultivation.	1881	10	3	1105	3	0
Total cultivation ..	53011	3	14	31154	1	26
Second or after crop of wheat, barley, &c. grown on the above lands ..	5322	5	12	2127	3	20

Irrigation of Land.

The quantity of land under wet and dry tillage is as follows :—

	Cultivation.						Purtur, or formerly cultivated.					
	Beegas.	w.	ww.	Acres.	r.	p.	Beegas.	w.	ww.	Acres.	r.	p.
Koowetur, or wet.	13635	8	3	8013	1	33	648	11	15	381	0	27
Pokhreea, or dry.	39375	15	11	23140	3	32	17743	8	7	10427	2	35
Total ..	53011	3	14	31154	1	26	18392	0	2	10808	3	22

From the above it appears that about 25 per cent. of the land in actual tillage is irrigated by artificial means: in the Ahmedabad Duskroee the proportion is 24 per cent. Irrigation is chiefly carried on from wells: the villages low down upon the Kharee irrigate their fields from the river by means of bunds thrown across the stream, the level of the land being so low as to be nearly even with the bed of the river. This source of irrigation is not, however, to be depended upon, and it is liable to fail just at the time when it is most required. The same objection holds to tanks, which in low rice tracts are made much use of, and in ordinary seasons are very advantageous. The water of the Meswa and Watruck is supposed by the people to possess properties detrimental to the land, and also to be unwholesome for men or cattle to drink. The same prejudice is partially entertained against the water of the Kharee: some land irrigated from it in Pansolee has certainly turned salt, but this has more probably arisen from a too rapid

and forced succession of crops than from any bad quality in the water of the river. All the low tract across to Kutwara and Muheejra, Westward as far as the Saburmuttee, has recently become strongly impregnated with salt, and the water in the wells has turned so brackish as to be unfit for use. This disaster is by some attributed to the earthquake which occurred in 1819 A. D., and by others, with greater probability, to the series of heavy monsoons which were experienced between Sumwut 1870 and 1878 (A. D. 1814 and 1822).

Wells.

7. The number of wells, perfect, and in use in the Government villages of the Purgunna, appears by the Survey accounts to be 761, of which 340 are on the Government lands, and 421 on the alienated: the number in ruins or in need of repair, and at present useless, is 359, of which 182 are on the Government, and 177 on the alienated lands; and the whole, it is estimated, might be fully repaired for less than 70,000 Rupees. As regards the number of wells, the two parts of the Duskroee are much upon a par: in the Ahmedabad there are 2,919 wells, or about 8½ per square mile; in the Kaira there are 761, or about 8 per square mile. Here, as in every other part of the Province, increasing the number of wells by every method of encouragement is the most rational and certain method of improvement that can be devised. In Pansolee there is a field, which a Patel has contracted with its owner, a Guraseea, to bring into cultivation, provided he be allowed all the profit of it to himself for 9 years, and afterwards retain the right of cultivation, paying to the owner one-half of the produce. The Patel has made it into rice ground, and built a well from which to water it. A similar plan might with advantage be adopted for the Government waste lands.

Constitution and Assessment of the Villages.

8. The constitution of a few of the Kaira Duskroee villages is "Nurwa," but the major part are "Senja." A good example of the "Nurwa" system is presented in Vehelal; which, also, by its flourishing condition, shows the excellent nature of the system, and to what degree it is capable of raising the resources even of small and confined villages. Vehelal is divided into 2 principal "Bhags," or shares, called the "Motee Patee," or great division, and the "Nanee Patee," or little division: each of these is again subdivided into 24 "Rupees," or minor shares; so that there are in all 48 "Rupees," and each "Pateedar" is responsible for the "Rupee" or "Rupees" which he holds. The "Motee Patee" consists of beegas 788 18w. 0ww. of land, including "Mujmoo," or land not originally "Nurwa"; and the "Nanee Patee" of beegas 195 2w. 0ww., including "Mujmoo." Each "Rupee" contains 25 beegas of "Nurwa," and 8 beegas of "Mujmoo" lands, in all 33 beegas. The assessment is not fixed, but fluctuating: the whole of the Government demand, whatever it may be, is divided equally among all the 48 "Rupees," and each of the 2 "Patees" is collectively answerable for any deficiencies that may occur in its respective portion.

Rates of Beegotee.

9. The senja villages are assessed for the most part by beegotee; and very generally held on lease by the Patels, but in no instance at the present day by strangers or professed farmers. The common rates of beegotee on the Government lands are as follows:—

On irrigated goraroo land of the uwul, or best kind, from 8 to 11 Rupees; of the doyum or middling kind from 4 to 8 Rupees.

On goraroo land, not artificially irrigated, of the uwul and doyum kind, from 1 to 4 Rupees; of the soyum or inferior kind from 1 to 2 Rupees.

On irrigated kaurda or rice land of the uwul kind from 9 to 12 Rupees; of the doyum kind from 5 to 8 Rupees.

On kaurda land, not irrigated, of the doyum kind, from 4 to 5 Rupees; of the soyum kind 3 Rupees.

On rubbee or after crops, grown by irrigation, from 1 to 2 Rupees. (Often no extra payment is made for a rubbee crop, it being considered in koowetur, or watered land, as included with the khurreef.)

On sankha rubbee, or late crops, grown by irrigation on land that has not borne an early crop previously, but has lain fallow during the monsoon, 4 Rupees.

On goraroo land, newly brought into cultivation, ½ and 1 Rupee during the first two or three seasons.

On kaurda land, newly formed, from 1 to 2 Rupees the first two or three seasons.

The goraroo lands are invariably assessed by beegotee; but in the greater number of villages rice crops are assessed by butaee, or in kind; and frequently, but not so generally, the after irrigated crops are so likewise. The ordinary share taken as the right of Government is (½) one-half of rice, (¼) one-fourth of second, and (⅙) one-sixth of third crops; sometimes babtees, or extra cesses, on account both of Government and of individuals, are superadded, but they are not common, or of any great amount. As an example of the butaee and beegotee systems combined, the "Dara," or detailed mode of collection pursued at the fine village of Muheej, is subjoined in an appendix. The following shows the proportional extent to which each system of assessment prevails:—

	Beegas.	w.	ww.
Land assessed as Nurwadar, Fatachas, or Khatabundee, according to estimate.....	5354	14	10
„ by Senja beegotee	28593	4	0
„ by Butaee, or in kind	2957	0	0
Total Government arable land....	36804	18	10

Exception to the ordinary Rules of Assessment.

Exceptions to the ordinary rules of assessment are to be found in the following instances:—Pursantaj is a Fatachas village, and one equal rate of 3½ Rupees per beega is levied on all the lands, alienated as well as Government, indiscriminately—a very uncommon circumstance, and contrary to the general usage of the country. In Chandweel, an example is afforded of an assessment upon the land without regard to its soil or crop, each field being rated at an unvarying yearly sum, according to its particular situation and circumstances. The little village of Hooka is partly "Khatabundee," or assessed by fixed sums on separate "Khatas," or estates. There are 9 khatas, and to each khata are attached 183½ beegas of land, for which the yearly payment of 481¾ Rupees must be made good by the holder of the khata, whether the land be cultivated or not. This in practice is the same as the nurwa system, a superior tenant answering for a certain share of the Revenue, and under-letting the land at his own pleasure or convenience. At Pusoonj a peculiarity is met with, the koowetur land being assessed at different rates, according to the well from which it is watered, and to which it is considered as attached.

Payments of the Alienated Lands.

10. The alienated lands pay sulamees varying from 2 Annas to 5 Rupees per beega; and suwadeeas varying from 1 to 2 Rupees; but the latter are not often assessed.

Veeras, or Taxes.

11. Veeras, or money taxes, are very generally imposed upon houses and ploughs; as also upon cattle, and in fixed sums upon those following

particular trades or occupations in the villages. A tax upon the "Kos," or water bags of wells, is common, the "Rameea" or deep wells, as watering a larger quantity of land, paying more than the "Soondeea" or shallow wells. A portion, usually a half, of the produce of fruit trees, is sometimes taken on account of Government. It was once a common custom for the Buneeas keeping shops in villages to defray the "Chora Khurch," or contingent expenses of entertaining travellers, but it has become obsolete.

Rate of Assessment moderate, with the exception of that of Rice Produce.

12. The assessment of these villages, taken individually, appears to be moderate, and such as is likely to promote their progressive prosperity. The only part that can be pointed out as too high, or bearing too hard upon the people, is the beegotee fixed in a few of the villages upon rice: this in some cases is certainly above the ordinary and proper standard. The villages of Bheraee and Dhutal may be particularised: in the former $13\frac{1}{2}$ and 13 Rupees per beega (or $22\frac{3}{4}$ and 22 Rupees per acre) are paid for the khurreef rice, and one-fourth share of the produce in kind of any rubbee crop raised after it; in the latter $11\frac{1}{2}$ Rupees per beega are for the rice, and $1\frac{1}{2}$ Rupee for the after crop. The highest rate for rice ground in the Ahmedabad Duskroee villages, of equal, if not of superior soil, and with the same advantages of irrigation, is 11 Rupees per beega ($18\frac{1}{2}$ Rupees per acre), and even this is considered too high.

Net Revenue of six years.

13. The charges upon the gross Revenue may be taken at $14\frac{1}{2}$ per cent., and the following table shows the net Revenue, after the deduction of charges, of the last 6 years, or from Sumwut 1876 to 1880 (A. D. 1818-19 to 1823-24):—

Sumwut,	or	A. D.		*Rupees.*
1875	„	1818-19	.....	$81530\frac{1}{2}$
1876	„	1819-20	.....	83633
1877	„	1820-21	.....	$87813\frac{1}{4}$
1878	„	1821-22	.....	$89901\frac{3}{4}$
1879	„	1822-23	.....	91428
1880	„	1823-24	.....	$74859\frac{3}{4}$

Average Net Revenue, and Average Rate of Payment per Beega and Acre.

It appears, therefore, that the average net Revenue of Government is 84,861 Rupees; and calculating with this sum, the average rate paid per beega in Rupees, and per beega and acre in English money (taking the Rupee at 2*s.* 3*d.* sterling), will be as shown in the following table:—

	On Total Cultivated Land.			On Total Arable Land.			On Total Area.		
	Rs.	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*
Per beega	1	2	62	0	3	99	0	3	29
Per acre.....	2	3	29	1	2	80	1	1	60
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Per acre.....	0	6	$3\frac{1}{2}$	0	3	$9\frac{3}{4}$	0	3	$1\frac{3}{4}$

It may here be remarked, that according to the above table the average rate upon the cultivated land is somewhat lower in the Kaira Duskroee than in the Ahmedabad; but the payment upon the total arable land is, within 1 rea, the same in both.

Alienated Lands.

14. The following is a statement of the alienated lands of the Purgunna, drawn from the Tullatees' numoona accounts:—

	Nukra, or Free.		Subject to Sulamee and Suwadeea.		Total.	
	Beegas.	w.	Beegas.	w.	Beegas.	w.
Guraneea.....	1122	4¼	2211	7½	3333	11¾
Vechaneea.....	1587	17	12835	16	14423	13
Pusaeeta.....	2297	5½	387	13	2684	18½
Hureea & Runwuteeya.	271	5	146	0	417	5
Chakreea.....	2230	2	243	5	2473	7
Wuzeefa.....	.....		134	10	134	10
Wanta.....	1461	12½	3584	12½	5046	5
Total..	8970	6¼	19543	4	28513	10¼

	Beegas.	w.	ww.	Acres.	r.	p.
Total Government land by estimate....	36804	18	10	21630	0	11
Total alienated land.....	28513	10	5	16757	1	0
Unproductive waste.....	22721	0	0	13353	0	3
Total area of the Purgunna..	88039	8	15	51740	1	15

By the Tullatees' accounts of the alienated lands of the Ahmedabad Duskroee, it appears that there they amount to 42½ per cent. of the total arable lands; and here, as shown above, they amount to 43 per cent.: in the Mehemoodabad Purgunna they are 50 per cent. The large proportion of vechaneea is as remarkable here as in Mehemoodabad, and it may be inferred from it that upon a scrutiny the sum total of the alienated lands might be much reduced. The gureneea is comparatively a trifling item.

Population.

15. The total population of the Government villages of the Purgunna appears to be as follows:—

	Males.	Females.	Total.
Koonbees	2645	2081	4726
Rajpoots	836	622	1458
Kolees	3227	2609	5836
Brahmuns	702	493	1195
Bhats and Tragala	89	49	138
Buneeas	476	348	824
Wuswaeeya, or Village Artizans	1164	917	2081
Dhers, Bunghees	1235	1032	2267
Various other Castes	459	340	799
Total Hindoos	10833	8491	19324
Moosulmans..	571	411	982
Total.. ..	11404	8902	20306
Slaves, male and female	..	..	208
Total population			20514

The Kolees appear to be the preponderating caste, and next to them the Koonbees: the Moosulmans are principally Rajpoots, who were converted to Moslemism about the time of Mehemud Begra: they are all cultivators, and some of them Patels of villages. The Dhers are more numerous than usual: they are most so in Bhaner, where, as also in Bakrol, they carry on an extensive manufacture of coarse cloth. It will be observed that the male population exceeds the female in the proportion of 100 to 78, or 1·28 decimals to 1.

Agricultural Stock, and General Resources.

16. The agricultural stock, cattle, and other resources of the Purgunna are as below :—

Square Miles.	Number of Villages.	Houses.	Souls.	Horned Cattle.	Horses.	Sheep and Goats.	Ploughs.	Carts.	Net Revenue—the Mean of 6 Years.
dcls.									*Rupees.*
94·59	33	5849	20514	16580	67	1658	2572½	822	84861

The following shows the proportion of the above resources, &c. to the square mile and to the acre :—

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.	
						Rs.	*q. r.*
Per square mile.. ..	62	217	175	27	8	897	0 67
Per acre..	$\frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{35}$	$\frac{1}{80}$	1	1 60

The above tables shows a result slightly superior to that of the Ahmedabad Duskroee; but allowing for the smaller extent of the Kaira part, the two appear to be much upon a par with each other.

Condition and value of the Villages compared with each other.

17. The two finest of the Kaira Duskroee villages are Kooha and Muheej, the former of the goraroo, and the latter of the rice description; and it is curious in contrasting them to mark the inferiority of the one to the other. The area of Kooha is 8,397 beegas (4,935 acres), and of Muheej 8,112 beegas (4,767 acres); the cultivated land of the former amounts to 4,351 beegas (2,557 acres), and of the latter to 4,927 beegas (2,896 acres). So far the two are pretty nearly upon a par; but more than one-half of the cultivated lands of Muheej produce the finest crops of rice, irrigated from numerous wells; while the fields of Kooha are for the most part sown with dry grains only; consequently the Revenue of Muheej, 13,500 Rupees, is nearly double that of Kooha, 7,395 ; (and considerably more than double that of any other village;) and yet the population of Muheej, 1,491 souls, is but little more than half that of Kooha, 2,475 souls; it is exceeded also by Bhaner, 1,502 souls; and nearly approached by Vehelal, 1,384 souls: for each individual, male as well as female, in Muheej, there are $3\frac{1}{10}$ beegas of cultivated land, and $9\frac{1}{8}$ Rupees of Revenue; while in Kooha the average is less than 2 beegas of land and 3 Rupees of Revenue. Even the number of Koonbees in Kooha considerably exceeds that in Muheej; so that the great superiority of the latter can be derived only from its extensive irrigation, and the source of its prosperity is to be found in its wells. Barejree, though in area nearly the smallest village of the Purgunna, is by no means the least in value or importance: its arable lands measure 494 beegas, and 490 beegas are actually in cultivation, leaving only 4 beegas waste or neglected; of the cultivation 345 beegas are irrigated rice grounds, and the Revenue paid equals 5,711 Rupees, or $11\frac{1}{2}$ Rupees per beega of cultivated land. It must, however, be considered, that the inhabitants cultivate much land in adjacent villages. The smallest and poorest village of the Purgunna under Kaira is Roopra: its area measures 499 beegas, of which 212 are in cultivation; and the Revenue paid by it amounts to 403 Rupees. No village excepting Muheej pays above 10,000 Rupees, or, excepting Kooha, above 6,000 Rupees; ten villages pay between 3 and 6,000 Rupees, and six others upwards of 2,000 Rupees. If the total gross Revenue be divided among the 33 villages, it will show an average to each of more than 3,000 Rupees.

General Condition of the Purgunna.

18. It is evident, therefore, that this is a very valuable tract of country, and it is still highly improvable, particularly in the Northern parts. Such improvement, perhaps, may be best effected by allowing a large profit on irrigated fields, and thereby encouraging the extension of irrigation; and in the wilder country by the establishment of Mooaras, or dependent hamlets, which, though not desirable in settled and well-cultivated villages, are the best means of bringing large waste tracts into tillage. The people are in general happy and contented: disputes among them are sometimes heard concerning the Patelship, which office has in some cases been bought and sold, and hence have arisen intricate disputes on a subject intimately connected with the welfare of the community. In Kooha the produce of certain lands is set apart for the defrayment of the village debts; and an example is afforded of an advantageous plan for the gradual discharge of the heavy embarrassments which encumber and keep back so many fine and improvable villages.

Result of the Survey.

19. This part of the Duskroee Purgunna has no separate Kusba, or distinct set of Native Revenue Officers; but is incorporate with Mehemoodabad, and under the charge of that Kutcheree. The Survey now completed was made during the years 1820 to 1823 A. D., corresponding with 1876 to 1880 Sumwut. The result, as exhibited in the General Statement No. 2 Supplemental, will be perceived from the following short abstract:—

	Beegas.	w.	Beegas.	w.
Total arable land by the Survey	84813	3		
„ „ by Tullatees' estimates ..	65318	8		
Excess by Survey			19494	15
Unproductive land by Survey	18107	19		
„ „ Tullatees	22721	0		
Less by Survey			4613	1
Total area in excess by Survey			14881	14

The boundary disputes were found to be rather numerous: by the settlements effected by the Survey 257 beegas of land were released from a disputed state, but 962 beegas still remain involved in boundary disputes unadjusted.

20. The Survey was conducted under the superintendence of Captain Ovans, 1st European Regiment, assisted by Lieutenant Keys, of the 6th, and Lieutenant Reynolds, of the 12th Regiment Native Infantry.

J. CRUIKSHANK,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 15th January 1827.

APPENDIX.

The Dara and Waeewut of the Village of Muheej.

The village dara, or mode of collection in use at Muheej is stated to be as follows:—

Government Lands.

As far as regards kaurda (rice grounds) cultivated by the Pateedars, half the produce is said generally to go to Government. When the dangur or sathee is on the ground, and nearly ready to cut, the Patels, the Tullatee,

and two respectable Koonbees go to each field and make a "Kultur," or estimate of its produce. This kultur, however, before written down, is lessened 10 per cent. From the heap, when ripe, 3 maunds are deducted for every koss for the Wuswaeeyas. The remainder is then divided between Government and the cultivator, in the proportion of $52\frac{1}{2}$ maunds to Government, and $47\frac{1}{2}$ maunds to the Ryut, of every 100 maunds. There is no kulee. The grain is brought by the Ryuts to their houses, and there the Government share according to the kultur is measured out, and sent to the village chora, which serves as a magazine for the Government grain, and thence it is sold by the Tullatee and Patels on account of Government or the Eejardars or farmers. The Patels always have hitherto held this village.

Kaurda (rice ground) cultivated by Koonbees, Kolees, or any others but Pateedars, yields a portion of its produce according to the undermentioned rules. A kultur, or estimate, is made of the crop of each field, when nearly ready to cut, and a deduction on this of 10 per cent. is allowed, after which it is registered by the Tullatee. Three maunds for every koss are then deducted from the whole for the Wuswaeeyas, and 1 maund from every 100 for tolamnee, or weighing, and the remainder is divided into two equal shares, one for the Government and the other for the Ryut. The latter, however, now pays from his, $2\frac{1}{2}$ maunds from every 50, or 5 per cent., which is added to the Government half. After this one anna in money on every maund of the Ryut's share is levied by Government, and one Rupee for every 36 maunds of the Government share is also taken as "Bara," or compensation money for not carrying the grain into Ahmedabad, where it ought to be delivered. All the koowetur kaurda is thus assessed, and the ukaseea also, except that the last does not pay either the "Bara" or the "Anna" per maund.

Kaurda popur (waste rice ground) newly cultivated yields half its produce to Government, and half to the Ryut without any deductions, and if the land has been long waste, and is newly cultivated, then two-fifths of the produce go to Government, and three-fifths to the Ryut, without any deductions; and if any of the last mentioned land of an inferior quality be cultivated, then one-third of the produce goes to Government, and two-thirds to the cultivator. Goraroo uwul or doyum koowetur under tobacco, whether cultivated by Pateedars or any others, pays 10 Rupees per beega to Government.

Goraroo pokhreea (dry) under tobacco pays 5 and 7 Rupees per beega to Government.

Goraroo uwul koowetur pays for a khurreef crop of bajeree, jowar, &c. 2 Rupees per beega to Government, and for a rubbee crop of jow and wheat, whether fallow or not, three-fifths of the produce go to Government, and two-fifths to the Ryut, for those fields that are near the village, and for those at a distance one-fourth only of the produce goes to Government.

Goraroo uwul pokhreea (dry) pays 2 Rupees per beega to Government.
" doyum " pays $1\frac{1}{2}$ Rupee " "
" soyum " pays $0\frac{3}{4}$, 1, and $1\frac{1}{4}$ Rupee "
" purtul newly cultivated pays $\frac{1}{2}$ and $\frac{3}{4}$ Rupee "

Goraroo purtul, which has always been so, pays when newly cultivated $\frac{1}{2}$ Rupee per beega to Government.

Alienated Lands.

The rice ground of every description of the old wanta (called the "Chouteea Wanta") pays one-fourth of its produce to Government, one-fourth to the proprietors, and two-fourths to the cultivator.

The goraroo of every description of the "Chouteea Wanta" yields a "Gunot" of $1\frac{1}{4}$, $1\frac{1}{2}$, and 2 Rupees per beega, of which half goes to Government and half to the proprietors.

The wuzeefa 200 beegas of the Syud called "Chouteea Wuzeefa" pays one-fourth of its produce to Government, one-fourth to the proprietor, and two-fourths to the cultivator.

The sulameea wuzeefa 125 beegas pays an "Oodhur" or fixed payment of 150 Rupees per annum to Government.

The other sulameea lands pay $\frac{1}{2}$, $\frac{1}{4}$, and 2 annas per beega to Government.

Veeras, or Taxes.

The Koonbees, Kolees, and other cultivators not Pateedars, pay a "Hul Veeras" of 5 Rupees per plough to Government.

The Buneeas pay 199 Rupees as an "Oodhur" or fixed payment on 20 of their houses.

The Koomars pay an "Oodhur" or fixed annual sum of					30	Rs. to Govt.
The Loohars	,,	,,	,,	,,	50	,, ,,
The Sootars	,,	,,	,,	,,	36	,, ,,
The Moochees	,,	,,	,,	,,	61	,, ,,
The Borahs	,,	,,	,,	,,	60	,, ,,
The Booees	,,	,,	,,	,,	$14\frac{1}{2}$	,, ,,
The Rubarees	,,	,,	,,	,,	$16\frac{1}{2}$	,, ,,
The Jogees	,,	,,	,,	,,	30	,, ,,
The Sonees	,,	,,	,,	,,	13	,, ,,
The Bhaosar (Dyers)	,,	,,	,,	,,	4	,, ,,
Luwaneea (Vegetable Sellers)			,,	,,	9	,, ,,
Looteea Borahs (Shop Keepers)			,,	,,	2	,, ,,
The Dhers	,,	,,	,,	,,	$307\frac{1}{2}$	,, ,,

From the tolamnee of 1 per cent. $12\frac{1}{2}$ seers go to the Buneea, and the remaining $27\frac{1}{2}$ seers go to Government.

The "Waeewut," or village constitution and management of Muheej is stated to be as follows :—

This village is "Nurwa." It consists of two large bhags, or 28 annas, of which $11\frac{1}{4}$ are purela or broken, and $37\frac{3}{4}$ entire. From Sumwut 1874, however, the management has been senja, and the collections made according to the dara given above, and so it still continues. The Pateedars are Lewa Koonbees.

In Sumwut 1875 Patels Deealjee and Govindas took the village on lease for 3 years on the following terms :—

For Sumwut	1875	to pay Rupees	11500	Jummabundee.
,,	1876	,,	12000	,,
,,	1877	,,	12500	,,

In Sumwut 1878 Patels Deealjee and Govindas, and Rugabhaee and Purvoodas agreed to pay as jummabundee Rupees 13,001 for one season.

Patels Deealjee and Jorabhaee, and Walabhaee and Rugabhaee, and Govindas and Purvoodas, and Mooljee and Munoordas—these eight agreed in Sumwut 1879 for one season to a jummabundee of Rupees 13,001.

The Patel's enam was here formerly 400 Rupees per annum, but this has not been paid since Sumwut 1875.

J. CRUIKSHANK.

STANDARD LAND MEASURE USED IN THE SURVEYS NORTH OF THE MUHEE.

THROUGHOUT the whole of the Zillas North of the Muhee, lands are measured and accounts kept in Beegas, Wusas, and Wiswusas: (20) twenty Wiswusas form (1) one Wusa, and (20) twenty Wusas (1) one Beega; the Beega, like the English acre, being entirely a square measure. The Guntha or rod, by which land measurements are made, is computed at (5) five Haths; and (20) twenty such Gunthas, or (100) one hundred Haths, are the length of one side of a Beega.

Prior to the Survey, no common standard for the length of the Guntha or of the Hath existed; but after a careful and thorough investigation and inquiry by the late Lieutenant Colonel Williams, the length of the Guntha was determined and fixed, upon the average of rods received from ten different Purgunnas, at (96) ninety-six inches, or (8) eight feet exactly, and the length of the Hath at ($19\frac{1}{5}$) nineteen and one-fifth inches.

The Beega, therefore, now considered as the Government Standard Beega for the Zillas of Kaira and Ahmedabad, contains (25,600) twenty-five thousand and six hundred square feet; the Wusa (1,280) twelve hundred and eighty square feet; and the Wiswusa (64) sixty-four square feet. As an English statute acre contains (43,560) forty-three thousand five hundred and sixty square feet, it follows that (1) one such Standard Beega is equal to (·5877) five thousand eight hundred and seventy-seven decimal parts of an acre; or that (1) one acre is equal to (beegas 1 14w. 0·62ww.) one Beega, fourteen Wusas, and sixty-two decimal parts of a Wiswusa.

The Government and the alienated lands are measured by the same common standard.

TABLE OF LONG MEASURE.

Inches.		Feet.		Hath.		Guntha.		Side of a Beega.
19·2 dcls.	=	1·6 dcls.	=	1				
96	=	8	=	5	=	1		
1,920	=	160	=	100	=	20	=	1

TABLE OF SQUARE MEASURE.

Square Inches.		Square Feet.		Square Yards.		Wiswusa.		Wusa.		Beega.		Acre.
9,216	=	64	=	7·11 dcls.	=	1						
184,320	=	1,280	=	142·22 dcls.	=	20	=	1				
3,686,400	=	25,600	=	2,844·44 dcls.	=	400	=	20	=	1		
6,272,640	=	43,560	=	4,840	=	680·62 dcls.	=	34·03 dcls.	=	1·70 dcls.	=	1

SELECTIONS FROM THE RECORDS OF THE BOMBAY GOVERNMENT.
No. XI.

REPORTS

ON THE

PORTIONS OF THE DHOLKA PURGUNNA

SITUATED IN THE

AHMEDABAD AND KAIRA COLLECTORATES;

ALSO ON THE

MEHEMOODABAD AND NUREEAD PURGUNNAS,

AND ON THE

OOMRET AND BHALUJ TUPPAS,

IN THE KAIRA COLLECTORATE;

AND ON THE

PITLAD PURGUNNA AND NEPAR TUPPA,

IN THE SAME COLLECTORATE.

BY

CAPTAIN J. CRUIKSHANK,
REVENUE SURVEYOR, GUZERAT.

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H. E. GOLDSMID,
Secretary to Government.

Revenue Secretary's Office,
23rd August 1853.

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1853.

REPORT

ON THE

PORTION OF THE DHOLKA PURGUNNA SITUATED IN THE AHMEDABAD COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Boundary, and Superficial Contents.

THE Dholka Purgunna is larger in superficial contents, and in the number of its villages, than any other in the Province of Guzerat belonging to the Honorable Company. It is of a very compact form ; being in length from North to South 47 miles, and in breadth from East to West 38¾ miles. It is bounded on the East by the Duskroee Purgunna, the Kaira District, and the territories of the Cambay Nuwab; on the South-west by the Dundooka Purgunna ; on the West and North-west by the Veerumgam Purgunna ; and on the North by the Kurree Purgunna, belonging to His Highness the Guikwar. It at present consists of 185 towns and villages, and its superficial contents are as follows :—

	dcls.		
Square British statute miles.....	930·57		
		r.	p.
British statue acres.....	595568	3	30
		w.	ww.
Standard beegas, North of the Muhee.....	1013397	16	13

It formerly contained 16 other villages, comprising an area of 70,216 beegas, or 41,265 acres, and paying a Revenue of about 64,184 Rupees; but these were retained under Kaira when the Purgunna was transferred to Ahmedabad at the first formation of the latter Collectorate.

Different denominations of Villages: Khalsa ; Talooka ; Enam ; Kheratee.

2. None of the villages of the Dholka Purgunna are detached from the rest, neither is there any village of any other Purgunna within their limits. They are divided into Khalsa, or Government villages ; Talooka, or those held on hereditary leases by Guraseeas and Kusbatees ; Enam, or wholly alienated to private individuals ; and Kherat, alienated for religious or charitable purposes. The alienated villages are all held entirely free of any payment whatever to Government ; the five Enamee belong to the Kusbatees, who appear to have obtained them from the reigning Guikwars, in recompense for Military services. Of the Kherat, two are held by Gosaeens ; one is appropriated to the support of a temple called the Boot Mata ; and one is

the property of the Syuds of Wujeood Deen, whose roza stands near the Chand-Sooruj in Ahmedabad. Of the whole number of villages, three only are deserted, or without resident inhabitants, and of these, two are small pooras in the neighbourhood of Dholka, where the cultivators reside. Forty-four villages around Sanund are nominally distinguished as the Sanund Tuppa; but as the distinction is not preserved in the Revenue accounts of the Purgunna, they have not been separately noticed.

Face of the Country.

3. The face of the country throughout the Purgunna is generally open and level, with a gradual slope from North to South, inclining to the South-west towards the salt flat or Little Runn, which extends along the North-west side of the Gulf of Cambay. About Dholka and the villages immediately north of it, and parallel with the bank of the Saburmuttee, the fields are enclosed with thick and high hedges, and planted with numerous fruit trees, which render the country for a few miles very close and difficult. The land in the North-east part of the Purgunna is high, and partially enclosed: three or four of the most northerly villages are overrun with a thick, low, jungle, communicating with the jungly tract in the Veerumgam Purgunna; to the Southward of these the country is ill cultivated, and the waste parts covered with high coarse grass; and a strip of the most Westwardly villages from Bukrana to Dholera presents an undulating and pretty appearance.

Peculiar character of the South-western part.

4. Through the whole South-western portion of the Purgunna, the country assumes a most barren and forbidding aspect. It is a perfect level, and so low as to induce the belief that at some remote period it was covered by the waters of the sea: there is even a tradition among the people of a bunder, or sea port, having once stood near the present village of Surugwala, at a small mound which is still a remarkable object. This tract is everywhere impregnated more or less with salt—so much so in some parts as to be wholly unproductive; and occasionally the ocular deception known by the name of mirage is to be observed. With the exception of a patch of loose shrubbery, and a number of tar and date trees about Ooteleea, and occasionally a few enclosures around the site of a village, there is scarcely a tree, or even a bush, to interrupt the sight, which accordingly extends to a great distance.

Appearance of the Villages.

The villages are distant from each other, and the boundary of each is very extensive: they are not particularly small or ill built; but have many good houses, and an appearance of comfort about them. They are seldom surrounded with any defence, but are slightly raised above the level of the plain, as a security against the floods of water which issue during the monsoon from the Nul. Numerous herds of cattle are kept, and the milk, which is nearly all consumed by the inhabitants themselves, adds much to the means of subsistence, and compensates, in some measure, for the great want of sweet water experienced during the hot season. The villages in the North-eastern and the centrical parts of the Purgunna have often a mud wall round them, and sometimes a "Pulwar," or thick jungle of thorny bushes, outside, forming an excellent defence against the desultory attacks of horsemen. Towards the Saburmuttee, and through the more fertile parts, the villages are enclosed by thick hedges, similar to those usually seen in well peopled and settled countries.

Roads.

5. The roads in the Western part of the Purgunna, over the black soil, are generally simple wheel tracks, or deep and uneven ruts. They are bad for wheeled carriages at all times; but during the monsoon many parts are entirely under water, and the rest scarcely passable. Towards the Saburmuttee, where the goraroo soil prevails, they are good at all seasons.

The only great thoroughfare is between Kateewar and Dholka, *viâ* Koth, where the roads are somewhat better than in other places.

The Nul: its general character;

6. The Western frontier of the Purgunna touches upon a large lake, bearing the name of the "Nul," which extends over a measured area of 31,500 acres, or 49⅕ square miles; and of this 22,796 acres, or 35½ square miles, were actually covered with water at the time its outline was surveyed in February 1824. In general character it is shallow, muddy, and abounding with thick impenetrable masses of reed; and is always covered with flights of water-fowl. It is bounded by no perceptible bank, and the country that borders on it is a dreary desolate flat, covered with vegetation of the rankest and most unwholesome nature. On its Eastern side there are some very remarkable undulations, which bear a remote similarity to the Mor Puna, or sandy hillocks that skirt the sea-shore between the Taptee and Nerbudda rivers. As soon as the rain ceases falling, the water becomes brackish, turning gradually more and more so, till perfectly salt. The shallow parts turn proportionally quicker than the deep; but the whole is salt by the end of February or March. Though at any time unfit for irrigation, it is never sufficiently impregnated to admit of the manufacture of salt itself; and it is the unanimous opinion of every person questioned on the subject, that in no part of it could salt pans be constructed with the least prospect of success.

The Water brackish, but not sufficiently impregnated for the making of Salt.

Roots of the Reeds eaten, under the name of Beer.

7. The reeds are used for chuppurs, or thatched roofs of houses, and the roots are eaten, under the name of "Beer." These roots are dug up, carefully separated from the fibres, and ground into flour: the bread has a dry, sweetish, and by no means unpleasant taste, something resembling gingerbread. While grain is procurable, only the very poorest classes feed upon it, but during a season of famine numbers are driven to it to support existence, and in that of Sumwut 1869, the place is said to have been thronged. To those accustomed to it from their birth it is nutritious enough, but when incautiously eaten in any quantity, by persons used to more wholesome food, it is apt to bring on violent dysentery, and inflammation of the bowels, often proving fatal. The fibres are supposed by the people to be a deadly poison. It is this reed alone that renders the ground occupied by the Nul valuable, and an object of contention among the villages that surround it. Menee and Doorjee, of the Dholka Purgunna, have unsettled claims within it, which cannot be satisfactorily adjusted until the tract on the Western side in the Veerumgam Purgunna shall have been examined.

Outlet by which the Waters discharge themselves.

8. The waters of the Nul, when full, flow off to the Southward, overspreading and destroying the greater part of the lands of Seeal, which throughout the entire year are totally unproductive, and covered with coarse vegetation. In heavy freshes the water spreads itself over the whole country, and takes a straight course to the sea; but ordinarily it is confined to a broad channel, which, under the name of the Bhogawa, passes Ooteleea, and, receiving the Hoonkar Wehela, a small stream from Kateewar, joins the Saburmuttee on the boundary of Boroo, the Southern limit of the Purgunna. No running stream, at the time it was surveyed, entered the Nul; but there are several drains which become streams in the monsoon, and of these the principal, on the Dholka side, is the Rohor, a wehela which takes its rise at Chekla, and during heavy rain floods the surrounding country: it does not actually join the Nul, but loses itself in the flat extending through Seeal and Meelapoor; adding, nevertheless, its waters to the general body, while in passage to the sea. There is but little communication kept up with the villages on opposite sides, but the passage is made on

Not supplied by any running Streams.

Crossed on narrow Rafts of Reeds.

narrow rafts formed of reeds, fastened tightly together; a conveyance which is sufficiently safe where there is no stream, and where the water is so shallow as to admit of its being impelled by a pole the whole way. Horsemen are obliged to take the circuitous route by Shahpoor or Seeal. It seems to be no improbable supposition that this lake was at one time directly connected with the Gulf of Cambay, and that the peninsula of Kateewar was almost, if not quite, an island: stones, with holes bored through the centre, are sometimes found, and pointed out by the people as those anciently used as anchors.

Probable connexion anciently between the Nul and the Sea.

Saburmuttee River: its general character.

9. The Saburmuttee river flows along the Eastern side of the Purgunna, and throughout the greater part of its course may be considered the present boundary. It is everywhere fordable, and as the soil becomes less sandy and more consistent, the channel narrows considerably, and the banks are found more regular, and decreasing in height with the decreasing level of the country; at the village of Boroo they are lost altogether, the river opening upon a bar, and dividing itself into two channels, with a low jungly island between. The sand, which everywhere forms a characteristic of the Saburmuttee, is here exchanged for mud; and on the Cambay side there is a tract of country of the wildest description. It is a salt flat, slightly lower than the level of the surrounding country, intersected with cuts and channels, all of which are filled with water during spring tides, and for the most part covered with a thick jungle of the peelansee, peelooree, and other spreading bushes: portions of it are arable, and a few fields cultivated, and the right to it still remains a matter of dispute between the villages of the Dholka Purgunna and those of the Cambay Nuwab. This spot is infested with both lions and tigers, to whom the coolness and moisture peculiar to the peelansee covers is no doubt an attraction. To the South it is terminated by a rising ground of some height, which stretches from the stream of the river to the village of Metulee (Cambay Purgunna), and at this point the river is forded on the high road between Peepulee or Dundooka and Cambay. The confluence of the Bhogawa is immediately opposite, the banks of which are very low, and overgrown with loose jungle: beyond this there is no village on the West side of the river, the entire space to the sea (about 8 miles in a straight line) being a salt and wholly unproductive waste; parts of it produce the kureree bush, the berry of which is sold to advantage, and used as a dye. When the tide is out the Bhogawa may, in many places, be crossed dry-shod, and it is never during the fair season of any considerable depth. The river can always be crossed at Boroo itself; but during spring tides it is rather deep. The influence of the tides from the sea extends as far as Mutamun, the Peer Bawul on the North boundary being considered as the furthest point at which it can be felt; but the water is not salt beyond Warna, and in the village of Mutamun itself is used for irrigation. Near the village of Jhakhra the people of Boroo manufacture a little salt in a shallow water-course, communicating with the river, and filled at spring tides only. The quantity produced is very trifling, and to all appearance it would not be worth while to increase it, as the population is, and probably will always continue, so very scanty in this barren part of the country. At Wuootha the Saburmuttee receives the water of the Watruck river, and this confluence being held peculiarly sacred, it is made the scene of a "Mela," or annual religious festival. The waters of the Sabur, the Meswa, the Seree, the Watruck, the Kharee, and the Hautmuttee, are here united, and, excepting the Bhogawa, the Saburmuttee receives no other tributary streams; and it is remarkable that all these flow in on its Eastern side. Nine villages

Wild and remarkable Spot near Boroo.

Confluence of the Bhogawa.

Extent to which the influence of the Tides is felt.

Trifling manufacture of Salt.

Confluence of the Watruck at Wuootha held sacred.

of the Purgunna, as it now stands under Ahmedabad, are situated on the opposite or East side of the river; viz. five adjoining the Duskroee Purgunna, and four more to the Southward, stretching into the Cambay: there are two villages on the opposite side of the Bhogawa—Dhunala and Lodula; but the boundary of the latter is formed by the Hoonkar Wehela.

Number of Villages on the opposite side of the Saburmuttee, and the Bhogawa.

10. The soil, and consequently the produce, undergoes much greater variation in the Dholka than in the Duskroee Purgunna; but as the distinctions of goraroo, kalee, and bhata, with the minor sub-divisions, are exactly the same in both, the explanation of them is not repeated here. Between the West bank of the Saburmuttee and a line passing from Bhaet through Kaveetha to Seenduroj, thence through the Kusba to Abarelee and Palree, and thence to Suheej, including also Wuootha and Geerud, are comprised the maleeat villages, the soil of which is composed of the goraroo or rich marwa, and a large portion of bhata, or alluvial land, formed by occasional overflowings of the river, and changes in its course. In a few of these villages, commencing with Amleeala, and thence South, the soil darkens considerably, having the resemblance of rich garden mould. Around Dholka Kusba itself are enclosures of very rich soil, chiefly laid out in gardens, in which every variety of country vegetable is produced: the same description of land extends also in a South-west direction, along the ancient course of the Sooknee nudhee, the deserted bed of a river, which is supposed at some very remote period to have formed the course of the Saburmuttee. Beyond these commence the wheat villages, composed of kalee bhoeen, or black soil, extending throughout the whole of the South-western part of the Purgunna. In a few villages immediately South of Dholka, at the commencement of the black land, a little rice is grown in the mixed soil, and irrigated from small tanks excavated for the purpose. The five villages on the East bank of the Saburmuttee joining the Duskroee Purgunna are of the rice description, but possess some good bhata land. The heart of the upper part of the Purgunna, between Sanund and Bawula, is composed of a series of rice villages, which extend Westerly along the Rohor Wehela, as low down as Sankor; but they are much inferior to the rice villages of the Duskroee Purgunna, and depend almost solely on the monsoon rain. West of Sanund the soil becomes darker, and is loosely cultivated with bajeree and jowar, and in favorable spots with rice. Along the East side of the Nul cultivation is confined to the thuleea land, or spots of goraroo a little elevated, which produce generally bajeree and mut. On the North-east frontier, as far as Sanund, Westerly, the goraroo land prevails, producing bajeree and jowar as the staple crops, and, where irrigation is available, after crops of wheat and barley. In the four villages situated East of the Saburmuttee, and indenting into the Cambay Purgunna, the soil is of a mixed nature: the two immediately on the river have some very good bhata land, while the others produce rice and the ordinary dry grains only.

Soil.

11. It is hardly possible to class the villages under the several distinctions of soil, as the nature of many of them is so much intermixed; but the following shows the proportionate number of "Maleeat," or villages producing sugar-cane, and the more valuable species of produce; "Dangureea," or producing rice; "Ghoonwar," or producing chaseea wheat; and "Bajereea," or producing bajeree, jowar, and the ordinary dry grains, with after crops of wheat and barley, from wells:—

Classification of the Villages under the several distinctions of Soil: Maleeat; Dangureea; Ghoonwar; and Bajereea.

Maleeat	31
Dangureea	24
Ghoonwar	87
Bajereea	40
Total	182

Irrigation from the River trifling.

12. The quantity of water raised for irrigation from the Saburmuttee river is very small, and its application limited to the fields immediately on the edge of the bank. It is conceived, however, that many eligible spots might be found for the erection of machinery, by means of which the cultivation of valuable maleeat productions might be greatly extended.

Tanks.

13. The tanks used throughout the Purgunna in irrigation are numerous, but prevail almost exclusively in the rice villages, and are scarcely met with in the maleeat or the wheat villages, the soil of neither of which is of a retentive nature. The form of these tanks is a rather remarkable feature of the country, denoting its very gradual slope from North to South, their sides being open, and level almost with the surface to the North, while the South banks are strongly dammed up, to retain the water as it drains off from the more elevated country in its course towards the Runn. The repair of these tanks and the excavation of others in favourable situations, should be at all times subjects of particular attention.

Nature of the Wells and Well Water :

14. Water sufficiently good for irrigation is only partially to be obtained from wells: towards the South and West boundaries of the Purgunna, at the close of the season, it is hardly fit for the use of the inhabitants, and the diversity in its quality and depth from the surface is very remarkable.

In the Sanund Tuppa ;

In the Sanund Tuppa, generally, it is of such depth as hitherto to have been applied to use, beyond supplying the daily wants of the villages, only to a very limited extent, as the expense and difficulty of constructing wells are so very great: these are much increased by the sandy nature of the soil, which is ill adapted for very deep excavation, and the quality of the water, which at times proves bad after the chief expense of constructing the well has been incurred. The average depth within Sanund itself, and in the villages situated East and North, where wells are so much required, is from 40 to 55 haths. South of it, to Durun and Chachrawaree Wasuna, inclusive, the depth varies from 25 to 40 haths. In the villages situated West of Sanund, towards Mukheeaw, the supply of water is abundant, near the surface, and of good quality; and the greatest field exists for its more extensive use in raising after crops. An exception, however, occurs in the case of two or three villages, particularly in Seeawara, where the water is both salt and at great depth; but a supply is obtained there from the village tank, which is of a large and fine description, and waters, in seasons of abundant rain, from 150 to 200 beegas of rubbee wheat and barley. It is kept in repair by an annual allowance for the purpose deducted from the Revenue, and the water is raised from it by means of troughs and scoops to two or three higher levels, in succession, for the purpose of watering the distant lands. In many villages (chiefly Talooka), the kucha well, called "Mateea," is in very extensive use, as the poverty of the people does not enable them to construct pucka wells: the ultimate saving to them would be of considerable importance, but both population and capital are exceedingly wanted to effect the improvements of which this portion of the Purgunna is so very capable.

In the Maleeat tract;

Through the space bounded on the West by the fine village of Bawula and Dholka Kusba, and on the East by the Saburmuttee, extending from

Bhaet to Wuootha, the wells average from 35 to 25 haths, decreasing in depth as they approach nearer to the river. In some of these, composed chiefly of the rich bhata land, the water is so near the surface as to render the kucha well of common use, and on the bank of the river, where the stream runs immediately underneath it, a supply of water is obtained by the "Dekooree," the construction of which has been described in the Report on the Duskroee Purgunna.

In the Villages East of the River, adjoining the Duskroee;

In the five villages to the Eastward of the Saburmuttee, adjoining the Duskroee, the dekooree is used upon the river, and the general depth of the well is from 25 to 35 haths. The salt impregnation, from which the soil here has sustained such great injury within the last 10 years, has been imparted with equal detriment to the water; and an extensive space of rice ground, with wells upon it, was often observed during the Survey in a totally unproductive state, but which only the two or three years preceding had borne the finest crops. The return of such lands to an arable condition is confidently expected by the people after a continuance of such dry seasons as are more natural to the province than the late heavy rains, and when the general influence of the rise of water to the surface, commonly known by the term "Beja," ceases to be felt.

And in those adjoining the Cambay Purgunna.

In the four detached villages on the East bank of the Saburmuttee, adjoining the Cambay Purgunna, the well water is by no means good, and for agriculture the river is the only resource.

About the Sooknee Nudhee;

Along the course of the Sooknee nudhee there are some villages of superior soil, partaking of the maleeat quality, in which the water is near the surface, and excellent. In the fine village of Peesawara, and the tract East and South of it to the river, the water is so brackish that the rice crops can only be supplied from small tanks, and there are no wet after crops.

And through the Wheat tract to the Westward of Dholka.

From Dholka in a Westerly direction towards the Nul the water is generally brackish, but around Gangur and Koth small quantities are procurable at little depth from the surface, good enough for the growth of rubbee barley. Beyond these two places, towards the Nul, Ooteleea, and Boroo, and throughout the whole chaseea wheat tract, irrigated crops are hardly known, and the inhabitants of the villages are obliged to obtain from holes dug temporarily in the beds of tanks into which the rain water has drained, and been absorbed, what they require for their daily use; and it is invariably found that even in such situations any attempt to raise an extraordinary supply exhausts in the space of a few hours the fresh water, which, from its lighter nature, remains nearer to the surface than the salt. Upon the sandy "Thuleeas," or rises near the Nul, good water is generally to be found; and some of the villages about Nanodura and Metal produce valuable and extensive after crops from both kucha and pucka wells.

Productions of the Purgunna:

15. The productions of the Dholka embrace all those enumerated of the Duskroee Purgunna, and the process of culture is the same; but in the former there are additional varieties of the maleeat or more valuable description, such as plantains, ginger, garlic, chilies, limes, and garden vegetables of many kinds: besides the usual after crops, chaseea wheat, or that raised without artificial irrigation, is extensively grown; and kusoombee is also here an article of some importance. An account of these is subjoined, as supplementary to the information already furnished for the Duskroee Purgunna.

Kel, or Plantains;

"Kel," or plantains, are produced throughout the goraroo lands, and such of the besur or mixed sort as do not partake of the rich bhata loam. The land receives four ploughings, and is manured with 20 carts of dung and 20 carts of black mould to the beega before the rains; and is ploughed and dressed four more times previous to planting. The trees are propagated by means of small shoots from the roots of the old ones, which are transplanted and placed $4\frac{1}{2}$ haths apart from each other, so that about 500 will occupy a beega. At the close of the rains the land is laid out in beds for irrigation, and watered twice during the month for 14 months; and at the expiration of 16 months the fruit (a single bunch of each tree only being allowed to mature) appears, and ripens in the course of 4 or 5 months more. The produce of a beega averages from thirty to forty thousand plantains, of which sixty or eighty are contained in one bunch. The value of a thousand is from $2\frac{1}{2}$ to 4 Rupees, while green, in which state the retail vendors of the large towns purchase them. The process of ripening them is artificial, or forced; and is effected by placing them in a large burnt earthern jar, over the mouth of which another pot is fastened, so as to effectually exclude the air, the two adhering together by means of a plastering of mud. The upper pot is nearly filled with bran or the husk of rice, which is gradually consumed by slow fire, and after undergoing this kind of baking for four days the fruit is found to be ripe. Another practice, but one not resorted to often in this part of the country, is to bury the fruit; in which situation, the air being excluded, it ripens gradually. The cast of plantain here known is the "Taporeea," a description inferior to the "Soondreea," which is the best species, and only produced where the fruit is more indigenous to the country: the produce is altogether very limited, and prevails in only a few villages of the best soil. The expense of cultivation for a beega is as follows:—

Ploughing 7 times	Rs. 3	2	0
Manure and black mould, 20 carts of each	12	2	0
Shoots, 500	5	0	0
Planting, dressing, &c	7	3	0
Watering	30	0	0
Guarding	4	0	0
Expense of cultivation	62	3	0
Beegotee, or Government rent	17	0	0
Total expenses	79	3	0
Produce, 3,500 plantains, at 3 Rupees per thousand	105	0	0
Balance of profit to the cultivator	25	1	0

Adoo, or Ginger;

"Adoo," or "Udruk," ginger, is grown in the best description of goraroo soil, manured with 20 carts of buffalo or cow-dung and 20 carts of black mould: the land is more frequently ploughed and more carefully dressed than for plantains. A beega requires 16 maunds of seed ginger, which is broken by the hand into small pieces, each containing a knot or eye, and planted in the months of May and June, at irregular distances. On the embankments of the beds yam ("Rutaloo") is almost invariably grown, about 3 maunds being sown in addition to the ginger. The ground is watered immediately after it is sown, and sheltered from the power of the sun by strewing over it the straw of rice and barley, or the refuse stalks of sugar-cane. The field receives 3 weedings, and is watered 12 times before the root is ready to be dug up, which occurs about

the Deewalee, or during the months of October and November. It is at this period ready for use only in a kucha or green state; but it does not ripen thoroughly until the end of the cold season, in February and March, when it is fit for market as dry ginger. The yam also ripens thoroughly about the beginning of the year, but for daily consumption is dug up a month or two earlier. The produce of a beega is from 100 to 175 maunds of ginger, and from 30 to 80 maunds of yam, the mean of both of which may be taken as an average crop. Very heavy rain is unfavorable, and is likely to rot the seed ginger, whence the dry soil of a sandy tendency is better adapted to the crop than the rich black loam; and the same land will bear it annually, as it occasions little or no exhaustion. The kucha ginger is deprived of the outer husk, and dried by exposure to the sun in the kulee, and from 1 maund dug up $\frac{1}{4}$ maund of dry ginger, called in this state "Soont," will be produced, the market price of which is about 6 Rupees per maund. The yam undergoes no preparation for sale. Although a large profit is exhibited, the crop is uncertain, and one of great risk, on account of the high charges of cultivation, which are in detail as follows:—

Ploughing 9 times				Rs. 4	2 0
Manure and black mould (2 carts of each)				12	2 0
Ginger seeds 16 maunds, and yam 3 maunds				42	0 0
Planting and weeding				3	2 0
Watering 12 times				13	0 0
Digging up				4	0 0
Expense of cultivation				79	2 0
Beegotee, varying from 6 to 20 Rupees, say				14	0 0
Total expenses				93	2 0
Produce in kucha ginger, average 125 maunds	Rs.	156	0 0		
Ditto in yam, average 50 maunds		17	0 0		
				173	0 0
Balance of profit to the cultivator				79	2 0

Lusun, or Garlic;

"Lusun," or garlic, is sown in goraroo or mixed soil, at the end of the rains, just previous to the Deewalee. The land receives 7 ploughings, and is manured with 25 carts of good dung; after which the seed garlic, about 12 maunds to the beega, is planted by the hand in a similar manner to the ginger, and immediately watered. It ripens in March, when it is dug up and conveyed to the cultivator's house: from 40 to 100 maunds is the average crop, and the expenses and return are as follows:—

Ploughing 8 times	Rs.	4	0	0
Manure (25 carts)		12	2	0
Seed garlic		30	0	0
Watering		16	0	0
Planting and dressing the beds		5	0	0
Weeding		0	2	0
Digging up		5	0	0
Expense of cultivation		73	0	0
Beegotee, varying from 5 to 10 Rupees, say		7	0	0
Total expenses		80	0	0
Produce, varying from 40 to 100 maunds, say 70		105	0	0
Balance of profit to the cultivator		25	0	0

Murchee, or Chilies;

"Murchee," or the chilie, is produced in goraroo soil. In June the land is manured with 10 carts of good dung, and ploughed monthly during the rains, in order to keep it clean. The plants which, like those of tobacco, have been reared in "Duroowaree," or small seed beds, are transplanted in September, and placed in bunches, at the distance each way of 2½ haths from each other, so many as five of them being sown together in one bunch. A small quantity of water only is required for the first month, after which the plants are irrigated every twelve days, and the chilies gathered as they ripen, which they continue to do till March. A beega will altogether yield from 100 to 200 maunds, or on an average 125 maunds; and the expenses and return are as below :—

Ploughing	Rs.	5	2	0
Manure		5	0	0
Seed and labour in the beds		1	0	0
Sowing		2	0	0
Watering		8	0	0
Gathering		4	0	0
Expense of cultivation		25	2	0
Beegotee, varying from 5 to 9 Rupees		6	0	0
Total expenses		31	2	0
Produce, 125 maunds		42	0	0
Balance of profit to the cultivator		10	2	0

Wureealee;

"Wureealee" is produced in goraroo or the mixed besur soils of good quality. In the month of June the land is manured to the extent of 8 cart-loads to the beega, and frequently ploughed and dressed until sowing, which is done by hand in October; 5 seers of seed being required to the beega. Watering takes place every 15 days: the crop ripens in January, and is cut in rather a green state, and dried on the ground for five days. The grain is of very small size, and is only partially cleaned from the bran. The produce is from 10 to 16 maunds per beega, or on the average 12 maunds, and the expenses and return are as below :—

Manure	Rs.	4	0	0
Ploughing		3	0	0
Seed		0	1	25
Watering		8	0	0
Reaping		0	1	0
Expense of cultivation		15	2	25
Beegotee		6	0	0
Total expenses		21	2	25
Produce, 12 maunds		24	0	0
Balance of profit		2	1	75

Soowa;

"Soowa" is cultivated in an exactly similar manner to wureealee: the quantity produced is rather greater, but its value less, as the average crop is 14 maunds, and its value 21 Rupees. It is a condiment much used by the Natives; and frequently the young plant is eaten as a bajee, in which case it does not seed.

Metee;

"Metee" is also a condiment of great use in Native cookery, and, like the foregoing, is frequently eaten as a bajee, but then yields no seed produce. It is grown in any soil, the land receiving three ploughings

during the rains, and at the close of them 10 carts of manure are afforded to each beega. After two more ploughings the ground is levelled by the sumar : the seed, 20 seers, is sown by hand, and the beds are subsequently formed for irrigation (as is also the case with the after wheat and barley crops); watering takes place every 15 days, and in February the crop ripens, the return yielded being from 12 to 20 maunds, or on the average 15. The expenses and return are as below :—

Ploughing	Rs.	3	0	0
Manure		5	0	0
Seed		1	0	0
Watering		6	0	0
Reaping		0	2	0
Expense of cultivation		15	2	0
Beegotee, from 4 to 9 Rupees, say		6	0	0
Total expenses		21	2	0
Produce, average 15 maunds		22	2	0
Balance of profit		1	0	0

Sukureea, or Sweet Potatoe;

"Sukureea," or sweet potatoe, thrives in both the goraroo and mixed soils. The land, being previously manured with 12 carts of dung and ploughed throughout the monsoon, is sown in October from a last year's bed, which has been watered and kept for the purpose. The potatoe rots in the ground, but from its skin small shoots spring, which, consisting each of a knot or eye with a single leaf attached, are sown in the prepared beds. The potatoe comes to maturity in January or February, and is dug up as required for market. A beega will yield from 1 to 200 maunds, the average being 125, and the expenses and return are as follows :—

Ploughing	Rs.	4	2	0
Manure, 12 carts		6	0	0
Expense of preparing the beds		1	0	0
Sowing		0	2	0
Watering		7	0	0
Digging up		3	0	0
Expense of cultivation		22	0	0
Beegotee		6	0	0
Total expenses		28	0	0
Produce, 125 maunds		36	0	0
Balance of profit		8	0	0

Jowar, Oonaloo;

"Jowar," as an "Oonaloo" or hot season crop, is grown in either the goraroo or kalee bhoeen, where good water may be available. It is sown in January, sometimes in succession to the sugar-cane crop just reaped, and then requiring no manure, and sometimes in purtur land, when manured to the extent of 10 carts per beega. About 25 seers of seed are sown by hand, after which the beds are formed for watering. The crop ripens in 3 months, and the return in grain is from 15 to 40 maunds, and in kurbee about 400 phoolees. The expenses are in detail as below :—

Ploughing	Rs.	3	0	0
Manure		5	0	0
Seed		0	2	0
Watering		6	0	0
Reaping and threshing		0	3	0
Expense of cultivation		15	1	0

Brought forward....	Rs.			15	1 0
Beegotee.				4	0 0
Total expenses				19	1 0
Produce, average 27 maunds of grain..	Rs.	15	2 0		
Ditto of kurbee, 400 bundles.....		6	0 0		
				21	2 0
Balance of profit				2	1 0

Kusoombee, or Bastard Saffron.

"Kusoombee," or bastard saffron, thrives in the mixed or besur soil. The land is manured in June with ten carts of good dung, excepting in a naturally rich soil, or where a highly manured crop has preceded. It receives four ploughings during the monsoon, and in October or November three more ploughings and dressings, when the seed, 12 seers, is sown with the drill; and after 5 or 6 days, without any irrigation, the shrub springs up above the surface. Nothing further is done till January, when the flowering commences: each pod affords 3 gatherings at intervals of a day, the whole crop being collected in about a month. The gathering is made in the cool of the morning, and a single person may gather about 3 seers: if the process be interrupted, and the first leaves allowed to remain unplucked, the whole pod will dry up, and no other appear. The flowers are sold to the "Phoolwaleea," or flower-men, sometimes in the "Leela" or fresh, and sometimes the "Sookha" or dry state, the former being the best for the Ryut. They are lodged and covered over for a day, and then exposed to the sun to dry, and in the evening the proportion of $1\frac{1}{2}$ pice weight of sweet oil is rubbed into each seer of the flowers. They are exposed for the next three days and nights, and then beaten into powder, and packed. The produce of a beega of the leela phool is from 4 to 10 maunds, or on an average 7; and of seed called "Kabree," which is valuable to the Ryut as food for his cattle, from 6 to 15 maunds, or on an average $10\frac{1}{2}$ maunds. The kabree is given up to the Ryut in compensation for his labour in gathering the flowers; as the cleaners of cotton take the "Kupassea," or seed, and give the owner the "Rooee," or wool. The expenses and return are for a beega as follows:—

Manure	Rs.			5	0 0
Ploughing				4	2 0
Seed				0	1 0
Gathering the flowers.....				4	2 0
Cutting the stubble, and reaping the seed.....				0	2 0
Expense of cultivation				14	3 0
Beegotee, from 3 to 12 Rupees, say.....				6	0 0
Total expenses.....				20	3 0
Produce in leela flowers, 7 maunds..	Rs.	17	2 0		
Ditto in kabree or seed, $1\frac{1}{2}$ maund..		7	0 0		
				24	2 0
Balance of profit.....				3	3 0

Monopoly allowed to the Phoolwaleea, or Contractors for the Flowers.

A peculiarity attends this crop which does not attach to any other. The flowers are contracted for by a person unconnected with the village in any other respect, who trades in the article. He in the first place contracts with the Government Tullatee, or the farmer of the village, for the monopoly of the flowers, engaging to pay on each maund of the dried flowers ($4\frac{1}{2}$ maunds of the leela being considered equal to 1 of the sookha) generally from $\frac{3}{4}$ to

3½ Rupees as sookree, the rate varying with the character of the village for producing flowers of the best dye. He afterwards endeavours to bring the Ryuts to terms for the sum they are to receive for the flowers, which is generally done when about three-fourths are gathered, and, being secure of reaping the whole crop, he can judge of its quality. Should disagreements arise on this point, the price is settled by the whole body of the flower-men, who at the close of the season assemble for the purpose, and regulate it according to the market value of the commodity; and at this rate the Ryuts of the whole of the kusoombee villages must compound. The sookree thus fluctuates according to the superior or inferior nature of the flowers, but the Ryut is deprived of any advantage from his crop being superior in quality beyond the larger quantity of kabree which he will obtain from it. Oil is extracted from the seed of an inferior description, and used in adulterating other oils, or ghee: it is eaten by cattle in the same manner as kupassea, the seed of cotton, to which, however, it bears no comparison in nutritive quality.

Chaseea Wheat.

"Ghoon Chaseea," wheat reared without irrigation, is grown exclusively in the kalee bhoeen. It requires good land, but the richest black soil, so well adapted for cotton and jowar, is too loose in texture, and retains hardly sufficient moisture near the surface to nourish the plant, wholly dependent, as it is, upon the dews. During the monsoon the land receives two ploughings, and a third, together with harrowing, at the period of sowing, which takes place in October generally, about 20 days previous to the Deewalee. The seed, a maund to a beega, is sown with the drill, and the crop, without weeding or further culture, ripens in January and February: it is drawn up by the root, and deposited in the kulee, where it is threshed and sifted. The produce of a beega, in the good Khalsa villages near Dholka, is from 5 to 16 maunds, or on the average 10 maunds. In such villages the expenses and return are in detail these :—

Ploughing				Rs.	2	2	0
Seed					1	1	0
Reaping					0	2	0
Expense of cultivation					4	1	0
Beegotee, varying from 2 to 4½ Rupees, say					3	2	0
Total expenses					7	3	0
Produce, 10 maunds of wheat	Rs.	8	0	0			
Ditto, ¾ cart load of straw		1	0	0			
					9	0	0
Balance of profit					1	1	0

In the poorer villages through the South-west portion of the Purgunna, the expenses of cultivation are not so heavy, but the return is much less :—

Ploughing 3 times				Rs.	1	2	0
Reaping and threshing					0	1	0
Expense of labour					1	3	0
Gross produce .... 4½ maunds;							
Deduct seed..... 1 maund;							
Remaining..... 3½ maunds, of which one-half is the Government share; the residue, 1¾ maund, is worth	Rs.	1	2	0			
Add straw		0	3	0			
					2	1	0
Balance of profit					0	2	0

Practice of estimating the Produce by Dal.

There are three modes by which the Government share of this produce is taken in kind from the Ryut: by "Oobha Kultur," an estimate of the crop standing; by "Makhul," the division of the shares by weight in the kulee; and by "Dal," which is the practice most resorted to in the Talooka villages where the beegotee has not been substituted for the ancient mode of settlement by bhag butaee, or taking the Government share in kind. The dal is an estimate of the whole produce made from actual experiment on a portion of each field. The proceeding is of a troublesome nature, involving, also, considerable expense, from the number of persons engaged upon it; to meet which, and reaping generally, an allowance of 10 per cent. is made on the gross produce, previous to dividing the Government and Ryut's share, together with the deduction of a maund per beega on account of seed. The dal is performed by pulling up by the roots the plants along three furrows from each field of about 3 or 4 beegas, one of which is taken from the centre and the other two midway from it towards the sides; but from a field of larger size a greater number are selected. The wheat is threshed upon the spot on a large coarse cloth of the texture of canvas (used for the carriage of grain in carts); it is winnowed and weighed, and the quantity entered in the Karbaree's chopra or book; and a written note to the same purport is given to the Ryut, according to which he is answerable for the regulated share of the Government or the Talookdar. The people occupied in the process are—2 men to count the chas or furrows, 3 to pull up the plants, with 3 peons to superintend, 3 men to convey the sheaves to the place of threshing, 8 men for threshing and 8 for winnowing, 1 Buneea for weighing the grain, and 2 writers. The labourers are remunerated from the wheat which has been reaped in the course of the experiment, each receiving not less than $\frac{1}{4}$ of a Rupee's worth, and the regular servants of the Talookdar also are fed; the whole, however, is defrayed from this source alone, and any surplus remaining is distributed in religious donations or enjoyed by the agents; but no portion is carried to the credit of either the Ryut or the Talookdar. The chaseea wheat is of good quality, and known by the name of the "Kata," or red description; it is rather inferior to the "Hanseea," the kind which is imported from Malwa. The irrigated wheat raised as an after crop on the goraroo land is also of the kata species, but greatly inferior to the chaseea: the ear of every description of wheat in this country is universally barbed, and where irrigated is hardly to be distinguished from barley.

Table showing the expenses in English Money, and the return per Acre of each description of Produce.

16. The following is a table showing the expenses of cultivation and the return of each description of produce grown in the Dholka Purgunna, calculated in English money for an English acre; and intended to correspond with the table of a similar nature given in the Report for the Duskroee Purgunna. The Rupee is taken at 2*s.* 3*d.* :—

Description of Produce.	Expenses of Culture per Acre.																Government Rent.			Total Expenses and Rent.			Produce per Acre.									Profit.			Loss.		
	Manure.			Seed.			Ploughing, Weeding, Guarding, &c.			Watering.			Total Expenses.									Grain.						Value of the Grass, Straw, &c.			Total Produce.								
				Quantity.																			Quantity.			Value.												
	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Dangur, greatest produce	0	19	1½	26	0	5	7⅓	0	17	5¼	0	5	8¾	2	7	11	2	6	1½	4	14	0½	2720	6	1	6	0	3	11¼	6	5	5¼	1	11	4¾	....		
Ditto, least ditto..	....			26	0	5	7½	0	14	4	....			0	19	11½	0	17	5¼	1	17	5¾	680	1	10	11¼	0	2	9¾	1	13	9	....			0	3	7¾
Sathee, greatest	....			60	0	3	4½	0	9	6¾	....			0	12	11¼	0	19	1½	1	12	0¾	1360	1	18	3	0	2	3	2	0	6	0	8	5¼	....		
Ditto, least	....			60	0	3	4½	0	9	6¾	....			0	12	11¼	0	7	7	1	0	6¼	410	0	11	6¼	0	1	8¼	0	13	2½	....			0	7	3¾
Bajeree Kuthol, greatest	0	7	10½	14	0	0	10¼	0	18	1½	....			1	6	10¼	0	19	1½	2	5	11¾	1700	3	3	6¾	0	7	3¾	3	10	10½	1	4	10¾	....		
Ditto, least ..	....			14	0	0	10¼	0	14	4	....			0	15	2¼	0	5	7½	1	0	9¾	270	0	10	1½	0	9	6¾	0	19	8¼	....			0	1	1½
Jowar Kuthol, greatest.	0	7	10½	25	0	1	1½	0	18	1½	....			1	7	1½	0	19	1½	2	6	3	1500	2	16	3	0	8	5¼	3	4	8¼	0	18	5¼	....		
Ditto, least ..	....			40	0	1	9¾	0	14	4¼	....			0	16	2	0	5	7½	1	1	9½	210	0	7	10½	0	11	3	0	19	1½	....			0	2	8
Sankhe Jow, greatest..	0	13	6	140	0	6	2¼	0	14	7½	0	19	1½	2	13	5¼	1	6	5¼	3	19	10½	2720	3	16	6	0	3	11¼	4	0	5¼	0	0	6¾	....		
Ditto, least ..	....			140	0	6	2¼	0	11	9¾	0	19	1½	1	17	1½	0	11	3	2	8	4½	1020	1	8	8¼	0	3	11¼	1	12	7½	....			0	15	9
Sankhe Ghoon, greatest.	0	13	6	140	0	9	10¼	0	14	7½	0	19	1½	2	17	1¼	1	14	3¾	4	11	5	2040	5	1	3	0	3	11¼	5	5	2¼	0	13	9¼	....		
Ditto, least ..	....			140	0	9	10¼	0	11	9¾	0	19	1½	2	0	9½	0	13	6	2	14	3½	680	1	13	9	0	3	11¼	1	17	8¼	....			0	16	7¼
Wava-ware (or after) Jow, greatest..	....			140	0	6	2¼	0	11	9¾	0	19	1½	1	17	1½	0	19	1½	2	16	3	2380	3	6	11¼	0	3	11¼	3	10	10½	0	14	7½	....		
Ditto, least ..	....			140	0	6	2¼	0	11	9¾	0	19	1½	1	17	1½	0	6	9	2	3	10½	1020	1	8	8¼	0	3	11¼	1	12	7½	....			0	11	3
Wava-ware (or after) Ghoon, greatest..	....			140	0	9	10¼	0	11	9¾	0	19	1½	2	0	9½	0	19	1½	2	19	11	1700	4	5	6	0	3	11¼	4	9	5¼	1	9	6¼	....		
Ditto, least ..	....			140	0	9	10¼	0	11	9¾	0	19	1½	2	0	9½	0	6	9	2	7	6½	680	1	13	9	0	3	11¼	1	17	8¼	....			0	9	10¼
Sankhe Kang, greatest.	0	7	10½	12	0	0	6¾	0	13	6	0	19	1½	2	1	0¾	0	15	2¼	2	16	3	2720	3	16	6	0	1	1½	3	17	7½	1	1	4½	....		
Ditto, least ..	....			12	0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	5	8¾	1	18	11	680	0	19	1½	0	1	1½	1	0	3	....			0	18	8
Sankhe Cheena, greatest.	0	7	10½	12	0	0	6¾	0	13	6	0	19	1½	2	1	0¾	0	15	2¼	2	16	3	2240	3	3	0	0	1	1½	3	4	1½	0	7	10½	...		
Ditto, least ..	....			12	0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	5	8¾	1	18	11	680	0	19	1½	0	1	1½	1	0	3	....			0	18	8
Wava-ware (or after) Kang, greatest ..	....			12	0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	11	6¼	2	4	8½	2040	2	17	4½	0	1	1½	2	18	6	0	13	9½	....		
Ditto, least	....			12	0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	5	8¾	1	18	11	680	0	19	1½	0	1	1½	1	0	3	....			1	4	5½

Description of Produce.	Expenses of Culture per Acre.																Produce per Acre.									Profit.			Loss.		
	Manure.			Seed.			Ploughing, Weeding, Guarding, &c.			Watering.			Total Expenses.			Government Rent.			Total Expenses and Rent.			Grain.			Value of the Grass, Straw, &c.			Total Produce.								
				Quantity.	Value.																	Quantity.	Value.													
	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Wava-ware (or after) Cheena, greatest. ..	....			12	0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	11	6¼	2	4	8½	1700	2	7	9¾	0	1	1½	2	8	11¼	0	4	2¾	....		
Ditto, least	....			12	0	0	6¾	0	13	6	0	19	1½	1	13	2¼	0	5	8¾	1	18	11	680	0	19	1½	0	1	1½	1	0	3	....			1	4	5½
Selree, Kalee, greatest.	4	11	1½	Pieces. 20400	3	9	2¼	10	12	0¾	4	14	9	24	7	1½	4	4	4½	28	11	6	Raw Sugar. 6800	52	11	10½	....			52	11	10½	24	0	4½	....		
Ditto, least ..	4	11	1½	Pieces. 20400	3	9	2¼	10	12	0¾	4	14	9	24	7	1½	2	6	1½	26	13	3	Raw Sugar. 1700	13	3	3	....			13	3	3	....			13	10	0
Selree, Dholee, greatest.	2	17	4½	Pieces. 13600	1	10	4½	9	9	0	4	15	7½	18	12	4½	5	14	9	24	7	1½	Raw Sugar. 4760	40	3	3	....			40	3	3	15	16	1½	....		
Ditto, least ..	2	17	4½	Pieces. 13600	1	10	4½	9	9	0	4	15	7½	18	12	4½	3	16	6	22	8	10½	Raw Sugar. 1700	14	6	10½	....			14	6	10½	....			8	2	0
Baota, greatest	....			7	0	1	11¾	0	14	4	....			1	4	4½	0	15	2¼	1	19	4½	2040	2	17	4½	0	1	1½	2	18	6	0	19	1½	....		
Ditto, least	....			7	0	1	11¾	0	14	4	....			0	16	3¾	0	5	7½	1	1	11¼	680	0	19	1½	0	1	1½	1	0	3	....			0	1	8¼
Kodura Buntee, greatest	....			12	0	0	6¾	0	9	6¾	....			0	10	1½	0	15	2¼	1	5	3¾	1360	1	18	3	0	1	1½	1	19	4½	0	14	0¾	....		
Ditto, least ..	....			12	0	0	6¾	0	9	6¾	....			0	10	1½	0	5	7½	0	15	9	480	0	13	6	0	1	1½	0	14	7½	....			0	1	1½
Kupas, greatest	....			8	0	0	6¾	0	11	6¼	....			0	12	1	0	15	2¼	1	7	3¼	Uncleaned Cotton. 410	2	6	1½	....			2	6	1½	0	18	10¼	....		
Ditto, least	....			8	0	0	6¾	0	11	6¼	....			0	12	1	0	7	7¼	0	19	8¼	Uncleaned Cotton. 200	1	2	6	....			1	2	6	0	2	9¾	....		
Tobacco, greatest.. ..	1	7	0	0¾	0	5	7½	1	15	5¼	1	7	0	4	15	0¾	2	6	1½	7	1	2¼	3400	11	19	0¾	....			11	19	0¾	4	17	10½	....		
Ditto, least	1	7	0	0¾	0	5	7½	1	15	5¼	1	7	0	4	15	0¾	0	19	1½	5	14	2¼	1700	5	19	3	....			5	19	3	0	5	0¾	....		
Chuna, greatest	....			34	0	1	11¾	0	9	6¾	....			0	11	6½	0	15	2¼	1	6	8¾	840	1	11	6	....			1	11	6	0	4	9¼	....		
Ditto, least	....			34	0	1	11¾	0	9	6¾	....			0	11	6½	0	7	7	0	19	1½	270	0	10	1½	....			0	10	1½	....			0	9	0
Deewula, greatest ..	....			14	0	1	1½	0	9	6¾	....			0	10	8¼	0	15	2¼	1	5	10½	680	2	7	9¾	....			2	7	9¾	1	1	11¼	....		
Ditto, least	....			14	0	1	1½	0	9	6¾	....			0	10	8¼	0	7	7	0	18	3¼	270	0	19	1½	....			0	19	1½	0	0	10¼	....		
Tul, greatest	....			0¾	0	0	1¼	0	9	6¾	....			0	9	8	0	15	2¼	1	4	10¼	480	2	7	3	....			2	7	3	1	2	4¾	....		

Ditto, least	....			0¾	0	0	1¼	0	9	6¾	....			0	9	8	0	7	7½	0	17	4	200 Flowers.	0	19	8¼	.... Seed.			0	19	8¼	0	2	4¼	....
Kusoombee, greatest ..	0	9	0	20	0	1	1½	2	3	0¼	....			2	13	1¾	1	10	4½	4	3	6¼	680 Flowers.	4	15	7½	1	18	3 Seed.	6	13	10½	2	10	4½	....
Ditto, least	0	9	0	20	0	1	1½	1	8	8¼	....			1	18	9¾	0	11	3	2	10	0¾	270 Plantains.	1	18	3	0	15	2¼	2	13	5¼	0	3	4½	....
Kel, greatest	2	7	9¾	850 Plants.	0	19	1½	2	18	6	5	14	9	12	0	2¼	5	14	9	17	14	11¼	68000 Plantains.	22	19	0	....			22	19	0	5	4	0¾	....
Ditto, least	2	7	9¾	850 Plants.	0	19	1½	2	18	6	5	14	9	12	0	2¼	2	6	1½	14	6	3¾	51000 Plantains.	17	4	3	....			17	4	3	2	17	11¼	....
Adoo (with Rutaloo), greatest.	2	7	9¾	Ginger. 1090 Yam. 200	8	0	10½	2	6	1½	2	9	6	15	4	3¾	3	16	6	19	0	9¾	Ginger. 11900 Yam. 5440	46	18	9¾	....			46	18	9¾	27	18	0	....
Ditto ditto, least..	2	7	9¾	Ginger. 1090 Yam. 200	8	0	10½	2	6	1½	2	9	6	15	4	3¾	1	3	0¾	16	7	4½	Ginger. 6800 Yam. 2040	25	16	4½	....			25	16	4½	9	9	0	....
Murchee, greatest ..	0	19	1½	1¾	0	3	11¼	2	3	10½	1	10	4½	4	17	3¾	2	6	1½	7	3	5¼	13600	12	14	9¾	....			12	14	9¾	5	11	4½	....
Ditto, least	0	19	1½	1¾	0	3	11¼	2	3	10½	1	10	4½	4	17	3¾	0	15	2¼	5	12	6	6800	6	7	8¼	....			6	7	8¼	0	15	2¼	....
Lusun, greatest.. ..	2	8	4½	816	5	14	9	2	15	1½	3	1	3¾	13	19	6¾	2	9	6	16	9	0¾	6800	28	13	9	....			28	13	9	12	4	8¼	....
Ditto, least	2	8	4½	816	5	14	9	2	15	1½	3	1	3¾	13	19	6¾	0	15	2¼	14	14	9	2720	11	9	6	....			11	9	6	....			3 5 3
Sukureea, greatest ..	1	3	7½	....	0	3	11¼	1	10	4½	1	7	0	4	4	11¼	2	6	1½	6	11	0¾	13600	10	18	3	....			10	18	3	4	7	2¼	....
Ditto, least	1	3	7½	....	0	3	11¼	1	10	4½	1	7	0	4	4	11¼	0	15	2¼	5	0	1½	6800	5	9	1½	....			5	9	1½	0	9	0	....
Wureealee, greatest ..	0	15	9	8½	0	1	1½	0	12	4½	1	10	4½	2	19	7½	1	14	3¾	4	13	11¼	1090	6	2	7½	....			6	2	7½	1	8	8¼	....
Ditto, least	0	15	9	8½	0	1	1½	0	12	4½	1	10	4½	2	19	7½	0	15	2¼	3	14	9¾	340	1	18	3	....			1	18	3	....			1 16 6¾
Soowa, greatest	0	15	9	8½	0	1	1½	0	12	4½	1	10	4½	2	19	7½	1	14	3¾	4	13	11¼	1220	5	2	11¼	....			5	2	11¼	0	9	0	....
Ditto, least	0	15	9	8½	0	1	1½	0	12	4½	1	10	4½	2	19	7½	0	15	2¼	3	14	9¾	680	2	17	4½	....			2	17	4½	....			0 17 5¼
Metee, greatest	0	19	1½	34	0	3	11¼	0	13	6	1	3	0¾	2	19	7½	1	14	3¾	4	13	11¼	1360	5	14	9	....			5	14	9	1	0	9¾	....
Ditto, least	0	19	1½	34	0	3	11¼	0	13	6	1	3	0¾	2	19	7½	0	15	2¼	3	14	9¾	820	3	9	2¼	....			3	9	2¼	....			0 5 7½
Sankhe Jowar, greatest.	0	19	1½	42½	0	1	11¾	0	14	4	1	3	0¾	2	18	6	1	3	0¾	4	1	6¾	2720	4	7	9	1	3	7½	5	11	4½	1	9	9¾	....
Ditto, least ..	0	19	1½	42½	0	1	11¾	0	14	4	1	3	0¾	2	18	6	0	11	3	3	9	9	1020	1	12	7½	1	2	6	2	15	1½	....			0 14 7½
Ghoon, Chaseea, greatest	....			68	0	4	9¼	0	11	3	....			0	16	0¼	0	19	1½	1	15	1¾	1080	2	14	0	0	3	11¼	2	17	11¼	1	2	9½	....
Ditto, least ..	....			68	0	4	9¼	0	7	7¼	....			0	12	4½	0	3	11¼	0	16	3¾	170	0	8	5¼	0	1	11½	0	10	4¾	....			0 5 11

Estimate of the number of Fold Seed multiplies itself.

17. The following estimate of the number of fold the seed of the principal descriptions of grain produce is supposed to multiply itself (the extremes being taken for the best and worst crops of a good season) may afford a basis for comparisons between the fertility of this and other Purgunnas :—

Rice	from	100	to	25	fold ; on an average about	53	fold.
Sathee.....	„	20		7	„ „	17	„
Bajeree.....	„	125		20	„ „	36	„
Jowar	„	50		5	„ „	23	„
Jowar Sankhe..	„	65		25	„ „	43	„
Barley.....	„	20		5	„ „	14	„
Wheat.....	„	15		5	„ „	10	„
Wheat, Chaseea	„	15		3	„ „	6	„
Kodura Buntee	„	110		3	„ „	40	„
Baota, Kang,&c.	„	300		50	„ „	160	„
Mug, Mut, & poor grains	„	24		8	„ „	20	„

Table of the quantity of Grain &c. to be purchased in 11 different years for the value of One English Pound Sterling.

18. The following table exhibits the quantity in seers (taken as equivalent to pounds avoirdupoise) of each kind of grain and vegetable produce which could be purchased in the Dholka bazar for the value of 1 English pound sterling in eleven different years ; viz. from Sumwut 1869 (a year of famine) to 1879, or A. D. 1813 to 1823, inclusive :—

	Sumwut 1869, or A. D. 1813.	Sumwut 1870, or A. D. 1814.	Sumwut 1871, or A. D. 1815.	Sumwut 1872, or A. D. 1816.	Sumwut 1873, or A. D. 1817.	Sumwut 1874, or A. D. 1818.	Sumwut 1875, or A. D. 1819.	Sumwut 1876, or A. D. 1820.	Sumwut 1877, or A. D. 1821.	Sumwut 1878, or A. D. 1822.	Sumwut 1879, or A. D. 1823.
	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.	Seers or lbs.
Rice, Kumod.....	133	222	329	267	355	355	400	249	364	445	445
„ Ulaechee.....	131	231	355	285	400	373	445	267	400	471	489
„ Sootursal.....	151	267	396	313	454	411	498	324	445	578	623
„ Sathee	213	400	533	489	605	623	711	445	578	711	889
Bajeree	251	142	302	387	355	400	355	187	289	364	427
Jowar.....	160	249	422	445	445	533	445	236	533	498	533
Mug.....	109	198	307	400	445	409	355	187	445	498	409
Mut	124	240	400	462	489	533	445	213	533	498	533
Urud.....	160	240	355	445	445	454	400	267	355	445	445
Chola.....	151	213	445	533	462	427	400	311	400	445	533
Toowur.....	142	267	355	445	462	322	382	285	445	533	489
Guwar	196	285	355	355	373	400	400	249	533	355	489
Kodura	196	311	711	711	711	800	711	711	711	623	889
Boata.....	142	222	445	489	533	533	400	355	623	489	533
Buntee	178	267	623	623	711	711	756	533	711	623	800
Tul (common Oil).....	102	285	178	178	189	168	158	142	142	158	205
Gol (Raw Sugar)	64	62	89	89	89	142	116	89	89	102	118
Adoo (Ginger).....	445	205	355	355	445	555	569	489	445	489	445
Rutaloo (Yam).....	355	445	711	800	623	845	355	889	933	889	711
Murchee (Chilies).....	107	98	217	189	158	210	178	64	118	249	205
Lusun (Garlic).....	124	142	316	258	355	445	316	355	422	355	178
Kel (Plantains).....	1423	964	1264	1115	1161	889	1094	1161	1094	964	824
Sukureea (Sweet Potatoes)...	889	1422	1422	1422	1422	1600	1511	1778	1679	1422	1511
Wheat, Chaseea.....	118	156	311	315	333	454	342	187	400	366	400
„ irrigated.....	124	169	346	364	346	489	355	205	454	373	418
Barley.....	178	351	633	533	578	711	551	355	711	623	711
Kang	169	249	445	533	533	578	533	373	533	533	578
Cheena.....	213	285	533	578	578	623	578	409	623	623	623
Erundee (Castor Oil).....	178	205	237	258	258	335	237	205	258	285	316
Chuna (Gram).....	124	213	373	373	369	445	373	311	489	445	489
Wureealee	59	71	109	89	118	96	129	89	118	102	178
Soowa.....	142	142	109	158	118	142	142	118	142	118	178
Metee.....	142	205	285	355	316	335	355	355	316	439	285
Raee (Mustard Seed).....	89	84	129	189	285	285	316	178	178	178	178
Jeera.....	30	27	71	64	79	84	59	35	57	84	71
Sursow.....	178	237	285	285	285	355	285	258	285	355	285
Huldur (Turmeric).....	48	55	51	51	68	71	55	62	71	84	64
Wal.....	160	320	445	711	623	623	578	311	533	623	711

Comparative Weight of the Seer and Pound Avoirdupoise.

By a careful comparison between the Broach seer (equal to the Ahmedabad) and the pound avoirdupoise, it appears that the exact weight of the pound is 2 parts in 81, or, rejecting the fraction, $2\frac{1}{2}$ per cent. less than that of the seer. For all general purposes, however, the seer may be taken at a pound, unless the quantity be very large, when the above allowance should be made.

Fruit Trees and Jungle Plants.

19. The fruit trees in the Dholka embrace no other varieties than those enumerated for the Duskroee Purgunna, and their number is so small as to render them quite unworthy of any notice. In the jungles on the northern frontier a remarkable plant abounds, called the "Khakhura," which grows very luxuriantly, and often to a considerable height: the leaf is broad, nearly resembling that of the "Bur" or Banyan tree, and it bears a handsome red flower, from which a yellow dye is extracted. The wood is cut and carried in carts by the Ryuts to Ahmedabad and Sanund for sale as fuel, and in some parts of the country the fibres of the root are formed into a coarse kind of rope for wells or other purposes. The jungles on the South towards Cambay consist principally of the "Peelooree," a very thick and spreading bush, and the "Peelansee," a rough furry plant found in hollows, and about the banks of rivers. In all the Western and Southern parts of the Purgunna fire-wood is extremely scarce.

Agricultural Implements the same as in the Duskroee.

20. The plough and other instruments uesd in husbandry are precisely the same as those already described in the report on the Duskroee Purgunna.

Former Condition of the Purgunna.

21. The land measurement of Todur Mul, the Financial Minister of Akbar, was carried through the whole of the Dholka Purgunna; and the records, as exhibited in the Purgunna Supplemental Statement No. 3, are produced by the Revenue Officers: they are similarly arranged to those for the Duskroee Purgunna, and the standard measure for computing the beega is equally unknown. No other documents of any kind calculated to throw light upon the former condition or management of the Purgunna are procurable. The establishment of the Talooks and the division of the Guraseeas' wanta, or free estates, are supposed to have taken place during the time of the Moosulmans, under whose government the country is said to have flourished; but during the whole period of the Mahratta rule the greatest disorder and confusion prevailed, in consequence of the constant inroads of the Katees, the Juts, and other lawless combinations of robbers from Kateewar and the borders of the Runn. The Honorable Company have held possession of the Purgunna since Sumwut 1862, or A. D. 1803, when it was ceded to them, together with what now forms the Kaira District, for the maintenance of the Guikwar subsidiary: the change that has since taken place from anarchy to good order, though not perhaps altogether so pleasing to the greater Thakors, whose connivance at plundering parties may have been often purchased by a share of the booty, is greatly appreciated by the body of the people; and during the progress of the Survey they constantly expressed a grateful sense of the security and protection now afforded to themselves and property in the remotest situations. The Purgunna after its cession remained under the management of the Kaira Kutcheree till Sumwut 1874, or A. D. 1817-18, when it was transferred to the newly formed Collectorate of Ahmedabad.

Present good order and security.

Khalsa and Talooka Villages considered separately.

22. The Khalsa and the Talooka villages are so distinct from each other in respect to their mode of management and general constitution, that it may be necessary to consider and treat of each as separate divisions of the country.

Khalsa Villages: their Situation, Number, and aggregate Area.

23. The Khalsa villages occupy all the fine rich tract along the banks of the Saburmuttee, including nearly the whole of the space which comes under the maleeat description of soil: they also compose the North-east frontier as far as Sanund, and the only villages detached to any distance from the rest are Bhawunpoor to the North, Seeawara to the North-west, and Mehemur, adjoining the Western boundary of Koth. Their number is by no means fixed, as some of those in the hands of Talookdars may be occasionally resumed and brought under the direct management of the Kutcheree; and sometimes, though not frequently, instances occur where villages previously Khalsa are returned under the sanction of Government to persons who have established their Talooka right, or to those whose families may have forfeited it for a series of years, but whom it is considered expedient to reinstate. The number considered Khalsa, and to which Government Tullatees were attached, at the period of the Survey amounted to sixty-six (66), three of which it is customary to reckon each as two or double villages—the two divisions of "Tulput" and "Wanta" having each its own particular Patels and Ryuts, and the Revenue being settled separately. But as the inhabitants occupy houses on the same site, and one common boundary encircles their lands, they have been surveyed and laid down on the plan as single villages, and must be so considered here, although the statements and kurdas for them are drawn out distinct in every respect. The area occupied by the whole 66 Khalsa villages is as follows:—

	dcls.		
British statute square miles	243·27		
		r.	p.
British statute acres	155693	0	20
		w.	ww.
Beegas of the standard North of the Muhee	264921	12	3

Comparative size and general condition.

24. The Khalsa villages are of respectable size, and upon the whole rather larger and more uniform in their dimensions than those of the Duskroee Purgunna. The kusba of Dholka itself, inclusive of its 8 pooras, which are commonly assessed with it, is the largest: its area comprises beegas 17,079 9w. 4ww., or acres 10,037 2r. 2p.: it pays to Government annually about 14,500 Rupees, (after deducting expenses under the head of pay to hereditary Revenue Officers, Tullatee, and contingencies, charitable donations, and village charges, to the amount of about 1,500 Rupees,) and the whole estimated proceeds of the lands which are almost entirely alienated are 36,000 Rupees. The smallest village in area is Chuk, which consists of beegas 449 19w. 19ww., or acres 264 1r. 34p., and it pays a Revenue of 730 Rupees: it is uninhabited, the cultivators residing in the town of Dholka. The village of Muneepoor pays the smallest sum (270 Rupees), owing to extensive alienation of the land, and the impoverished condition of the people. Besides the kusba, the fine villages of Chulora, Bawula, and Sathul pay each a Revenue exceeding 10,000 Rupees, and seven others pay sums descending from that amount to 5,000. The whole are pretty well peopled; and although wealth is by no means apparent in any, there are, perhaps, fewer villages of a poor description than in tracts of similar extent in other parts of the country. They embrace by far the finest portion of the Purgunna, and oppose a remarkable contrast to the possessions of the Talookdars on the West and South, where the country is so bare and barren.

Annual Net Revenue for 7 years.

25. The following is an account of the annual net Revenue of the Khalsa villages since the transfer of the Dholka Purgunna from the Kaira

to the Ahmedabad Collectorate, on the formation of the latter in Sumwut 1874, or A. D. 1817-18 :—

Vikramajet.		A. D.		*Rupees.*
1874	or	1817-18	.....	203447
1875	„	1818-19	.....	199775
1876	„	1819-20	.....	193678
1877	„	1820-21	.....	218688
1878	„	1821-22	.....	202078
1879	„	1822-23	.....	212993
1880	„	1823-24	.....	185652

In 1878 the Revenue of the wanta portion of Wuootha (401 Rupees) was first excluded from the Khalsa, and in 1880 the wanta portion of Chundesur (921 Rupees) and the little village of Guroreea (624 Rupees) were also thrown among the Talooka.

Revenue Management and Assessment.

26. The same mode of Revenue management prevails in the Khalsa villages of the Dholka as in the Duskroee Purgunna, and the assessment is almost exclusively made by beegotee. The want of any uniformity of system will be perceived by the following classification, wherein it is attempted to exhibit together as many villages as possible in which the rates at all correspond; and it will be equally observable here as in the Duskroee how entirely the beegotee is fixed upon the crop. The rate of payment upon each separate description of crop is generally regulated by the quality of the soil, whether uwul, doyum or soyum, where it is grown; but an assessment directly upon the land, leaving the Ryut to exercise his own choice as to the nature of the produce, is quite unknown.

Classification of the Villages under the several modes and degrees of Assessment.

1st, the Maleeat;

27. Of the 23 Maleeat villages one only is assessed by bhag butaee, the Government share of rice being ($\frac{1}{3}$) one-third; of fallow or after wheat and barley the same; and of dry grains from ($\frac{1}{3}$) one-third to ($\frac{1}{2}$) one-half. Five villages pay by beegotee for the maleeat crops and by bhag butaee for those of other descriptions: the Government share of rice is ($\frac{1}{3}$) one-third or ($\frac{1}{2}$) one-half; of fallow or after wheat and barley ($\frac{1}{3}$) one-third or ($\frac{1}{4}$) one-fourth; and of dry grains ($\frac{1}{2}$) one-half; the beegotees are the same as those below. The remaining 17 villages are assessed by beegotee entirely according to crops, as follows:—sugar-cane pays from 10 to 30 Rupees; plantains from 12 to 30; ginger from 7 to 20; garden vegetables from 5 to 13; rice in uwul land from 6 to $8\frac{1}{2}$, in doyum from 5 to $7\frac{1}{2}$, in soyum from 1 to 3; chaseea wheat from 2 to 4; tobacco from 6 to 12. In four of these villages the distinctions of soil are not considered, rice paying from $4\frac{1}{2}$ to 9 Rupees throughout; fallow wheat or barley from 3 to 7 Rupees, after wheat and barley from 1 to 3, and dry grains from $1\frac{1}{2}$ to $4\frac{1}{2}$ Rupees. In one single village rice pays in uwul land 11, in doyum 9, in soyum 7 Rupees; and sathee in uwul 4 Rupees, and in doyum 2. Plough veeras, in addition to the beegotee, are paid, in two villages, of $21\frac{1}{2}$ and 22 Rupees; in three from 7 to $12\frac{1}{4}$ Rupees; and in three others from 1 to 5 Rupees.

2nd, the Dangureea;

Five villages of the Dangureea class, assessed by beegotee, pay for rice, on uwul land, from $8\frac{1}{2}$ to 12 Rupees, on doyum from 8 to 10, on soyum from $6\frac{1}{4}$ to $8\frac{1}{2}$ Rupees; for sathee or coarse rice, on uwul, from $3\frac{1}{2}$ to $4\frac{1}{2}$ Rupees, on doyum from $2\frac{1}{2}$ to $3\frac{1}{2}$, on soyum from 2 to 3 Rupees; for fallow wheat and barley on uwul land from $4\frac{1}{2}$ to 6 Rupees, on doyum from 4 to 5, on soyum from 3 to $4\frac{1}{2}$; for after wheat and barley from $2\frac{1}{2}$ to 3 Rupees on each class of soil. In two of these villages chaseea wheat and cotton pay from $2\frac{1}{2}$ to 3 Rupees generally. In one village, sugar-cane pays 13 Rupees, ginger 8,

vegetables 4 and 5 Rupees. In one village the lands are not classed, and for rice 12, and for sathee 3 Rupees per beega are paid.

Four villages of the dangureea class are assessed by bhag butaee. The Government share of the produce of rice, sathee, jowar, and all the monsoon grain crops is ($\frac{1}{2}$) one-half and ($\frac{1}{3}$) one-third, and in one village the goraroo dry grain land pays 3 Rupees per beega. Of the fallow or after wheat and barley the Government share is ($\frac{1}{3}$) one-third and ($\frac{1}{4}$) one-fourth. In two villages sugar-cane pays from 18 to 12 Rupees beegotee, adoo 13, and vegetables 6 Rupees. Plough veeras are paid by four out of the nine dangureea villages from 1 to 6 Rupees per plough.

3rd. the Bajereea ;

Six villages of the Bajereea description, in which the land is classed under the variation of soil, pay beegotees as follows :—for bajeree and other dry grains on uwul land from 3 to $4\frac{1}{2}$ Rupees, on doyum from $2\frac{1}{2}$ to $3\frac{1}{2}$, on soyum from $1\frac{1}{2}$ to $2\frac{1}{2}$ Rupees ; for fallow wheat and barley on uwul from 3 to 7 Rupees, on doyum from $2\frac{1}{2}$ to 6, and on soyum from $2\frac{1}{2}$ to 5 Rupees ; for after wheat and barley crops generally from 2 to 5 Rupees. In five of these villages rice pays on uwul land from 6 to 10 Rupees, on doyum from 5 to 8, on soyum from $4\frac{1}{2}$ to 6 ; sathee on uwul land from $2\frac{1}{4}$ to $4\frac{1}{2}$ Rupees, on doyum and soyum from $1\frac{1}{2}$ to $4\frac{1}{2}$ Rupees. In two villages tobacco pays 5 and 10 Rupees per beega. In three sugar-cane pays from $10\frac{1}{4}$ to 13 Rupees.

Eight villages, also bajereea, wherein the classification of soil does not prevail, pay for dry grains generally from $1\frac{1}{2}$ to $4\frac{1}{2}$ Rupees per beega. In five villages fallow wheat and barley pay from $3\frac{3}{4}$ to $7\frac{1}{2}$, and after crops from $1\frac{3}{4}$ to $3\frac{1}{2}$ Rupees per beega. In six villages rice pays from $4\frac{1}{2}$ to 8 Rupees ; and sathee from 2 to 3 Rupees per beega. In two the rice and sathee pay in kind ($\frac{1}{3}$) one-third ; the fallow wheat and barley ($\frac{2}{5}$) two-fifths ; and the after ($\frac{1}{3}$) one-third. In three villages the chaseea wheat and cotton pay from $2\frac{1}{2}$ to $3\frac{1}{2}$ Rupees per beega. In two villages sugar-cane pays from 13 to 18, and tobacco and vegetables 8 Rupees per beega.

Four villages, being the remainder of the bajereea, are on the bhag butaee assessment, and pay for bajeree, jowar, and chaseea wheat ($\frac{1}{2}$) one-half; for rice and sathee ($\frac{1}{3}$) one-third ; for fallow or after wheat and barley ($\frac{1}{3}$) one-third and ($\frac{1}{4}$) one-fourth. In one village sugar-cane pays 13 Rupees per beega. Plough veeras are paid in five out of these eighteen bajereea villages from 4 to 14 Rupees per plough.

4th. the Ghoonwar ;

Seven villages of the Ghoonwar class pay beegotees as follow :—for chaseea wheat, cotton, gram, on uwul land from 3 to 4 Rupees, on doyum from $2\frac{1}{2}$ to $3\frac{1}{2}$, on soyum from $1\frac{1}{2}$ to $2\frac{1}{2}$; for rice on uwul from $7\frac{1}{2}$ to $8\frac{1}{2}$ Rupees, on doyum from 7 to 8, on soyum from 6 to $7\frac{1}{2}$; for sathee on uwul from $3\frac{1}{4}$ to $4\frac{1}{2}$ Rupees, on doyum from $2\frac{3}{4}$ to 4, on soyum from 2 to 3 ; for bajeree, &c. on uwul from 2 to 4 Rupees, on doyum from 2 to $3\frac{1}{2}$, on soyum $1\frac{1}{2}$ from to 3. In six villages fallow wheat and barley pay on uwul from $4\frac{1}{2}$ to 9 Rupees, on doyum from 4 to 6, on soyum from 4 to 5 ; after wheat and barley from 2 to 5 Rupees generally. In one village sugar-cane pays 13, and tobacco 9 Rupees per beega.

Four villages of the ghoonwar description, wherein no classification of the soil exists, pay for wheat, cotton, and gram from $1\frac{1}{2}$ to $3\frac{1}{2}$ Rupees ; for bajeree, &c. from $1\frac{1}{2}$ to 3. In two villages rice pays from 4 to 8 Rupees ; fallow wheat and barley from $2\frac{3}{4}$ to 4 Rupees ; after wheat and barley from $1\frac{3}{4}$ to 2 Rupees. In two villages tobacco and vegetables pay from $4\frac{1}{2}$ to 8 Rupees. In one village the bhata soil pays from 3 to 14 Rupees for all produce, except sugar-cane, which pays from 20 to 28 Rupees.

In five villages, the remainder of the ghoonwar, the bhag butaee system prevails: of wheat, cotton, gram, bajeree, &c. ($\frac{1}{2}$) one-half is taken as the Government share; of rice and sathee ($\frac{1}{2}$) one-half and ($\frac{2}{5}$) two-fifths are taken. In four villages irrigated wheat or barley pays ($\frac{1}{3}$) one-third and ($\frac{1}{4}$) one-fourth; and in one the fallow or after wheat and barley pay from $2\frac{1}{2}$ to 3 Rupees. Plough veeras are paid in six out of these 16 villages at from 1 to 8 Rupees per plough.

Examples of Daras.

28. The following daras or shurestas of a few of the villages, according to which the collections were made at the period of the Survey, will best exhibit the particular application of the rates of assessment.

Of Suheej, a Maleeat Village.

29. The village of Suheej, of the maleeat description, was assessed in Sumwut 1879 on the beegotee system, each crop being rated separately as follows:—

GOVERNMENT LANDS.

	On Uwul.	On Doyum.	On Soyum.
In the Goraroo Koowetur Soil.	*Rs.*	*Rs.*	*Rs.*
Selree, or Sugar-cane paid..	22	21	..
Murchee (Chilies), Reengnee (Brinjals).. ..	8	7	6
Tobacco	6	$5\frac{1}{2}$	..
Bajeree, Jowar, Guwar, &c.	$3\frac{1}{2}$	3	$2\frac{3}{4}$
Kodra	4	$3\frac{1}{2}$	3
Tul and Baota	5	4	3
Erundee	6	5	4
Buntee	$3\frac{1}{2}$	3	$2\frac{1}{2}$
Toowur and Sursoo	3	$2\frac{1}{2}$	2
Wheat, fallow	$5\frac{1}{2}$	5	$4\frac{1}{2}$
Barley, „	4	$3\frac{1}{2}$	3
Jowar, „	$6\frac{1}{2}$	5	..
Kang, „	$5\frac{1}{2}$	5	4
Cheena, „	5	4	3
Wheat, after	2	$1\frac{1}{2}$	1
Barley, „	$1\frac{1}{2}$	1	..
Kang, „	$2\frac{1}{2}$	2	..
Cheena, „	2	$1\frac{3}{4}$	..
Jowar, „	4	$3\frac{1}{2}$	3
In Kalee (black) and Mixed Soil, not irrigated.			
Chaseea Wheat paid	$4\frac{1}{2}$	$3\frac{1}{2}$	3
Cotton	5	4	3
Kusoombee	$7\frac{1}{2}$	$6\frac{1}{2}$	$5\frac{1}{2}$
Gram	3	$2\frac{1}{2}$	$2\frac{1}{4}$
In Kaurda Land, with or without Irrigation.			
Rice paid	$7\frac{3}{4}$	$6\frac{3}{4}$	$5\frac{3}{4}$
Sathee, or Coarse Rice	$4\frac{1}{2}$	4	3

The after crops paid the same rates as those for the goraroo soil.

ALIENATED LANDS.

Wanta land and tulput vechaneea, guraneea, or pusaeeta land, possessed by Patels and Government Ryuts, whether cultivated by themselves or others, were subject to pay, in lieu of the established sulamee, a suwadeea tax or rent equivalent to a third of the usual Government beegotee. The lands of Bhats, Brahmuns, Gosaeens, Chreeakat establishment, and artizans were free if cultivated by themselves, but if by Government Ryuts, they paid the suwadeea tax for all grain crops; for sugar-cane 12 and 13 Rupees

per beega, according to the quality of the soil; and for other maleeat crops a half of the Government beegotee on the same kind of produce.

VEERAS, or TAXES.

(Levied chiefly on Houses.)

Rubarees paid in the gross	Rs.	81
Rajpoots		47
Dhers		35
Buneeas' shops		10
Carpenters		14
Dyers		37
Green Grocers		20
Blacksmiths		5
Koonbee and Kolee Ryuts		506½
Havildar Santhe, a tax of ½ Rupee per plough—a resumed perquisite of the Havildar		77
Mapa (2 per cent. on the sale of all produce farmed for 5 years to the village Buneea) annually		301
Grass on land left as beer (since cultivated)		50

Sookree on the dry flowers of the kusoombee dye, at from ½ to 1½ Rupee per maund, is paid by the phoolwaleea who contracts for them.

The above beegotees in many instances having been found beyond the power of the people to pay, were lowered while the Survey was in progress, and the assessments of that year (1880) made according to the revised rates.

Of Salejra, a Dangureea Village.

30. The village of Salejra, of the dangureea description, was assessed in Sumwut 1879 at the following beegotee rates :—

GOVERNMENT LANDS.

In the Koowetur Soil.

	On Uwul.	On Doyum.	On Soyum.
	Rs.	*Rs.*	*Rs.*
Rice paid	10½	9	7½
Sathee, or Coarse Rice	4	3½	3
Wheat, fallow	6	5	4
Barley, „	5	4	3
Wheat, after	3½	3	2½
Barley „	3	2½	2
Bajeree, Jowar, Cotton, and dry Grains generally	2	1¾	1½

In the goraroo pandhur (not irrigated) soil, the dry grains paid at the same rates as in the well land.

In the kalee, or black land, which is of the doyum, or middling quality, chaseea wheat and cotton paid 3 Rupees per beega.

ALIENATED LANDS.

The alienations from the tulput of the guraneea, vechaneea, and chakureea tenures were exempt from payment if cultivated by the owners; but if by Government Ryuts were subject to a suwadeea of 3 Rupees per beega on uwul kaurda; of 2¼ and 3 annas on other rice crops; and of ½ Rupee on dry grain crops in the poor goraroo lands.

VEERAS OR TAXES.

The Pateedars, Koonbees, and Kolees paid per plough 1 Rupee	Rs.	61¼
The Pateedars and Koonbees, as Khurajat, paid per plough 1 Rupee		55½
Carried over		116¾

Brought over..	Rs.	116¾
The Pateedars and Koonbees, as Kanda, the instalment of a debt paid, but continued as an item of Government Assessment.....		101
The Pateedars, Koonbees, and Kolees paid on milch cattle		101
The Buneeas' Shops.....		6
The Green Grocer.....		1½
The Goldsmith		1
The Dhers, a gross sum of		20

Of Peesawara, a Ghoonwar Village.

31. The Khalsa village Peesawara, of the ghoonwar description, was assessed in Sumwut 1879, on the beegotee system, at the following rates:—

GOVERNMENT LANDS.

In the Kalee and Mixed Soils.

Wheat, chaseea (not irrigated) paid	Rs.	3½
Kusoombee..		4½
Tobacco		8
Bajeree, jowar, and the pulse crop		3
Rice.....		8
Sathee, or coarse rice		4
Wheat, chaseea, being grown as an after crop to rice and sathee		1½
Rice ground, formed temporarily on dry grain lands		5½
Rice, on waste of a few years		5

Dry grains on a few of the poorest lands were grown by distinct agreement at 1 Rupee per beega, and in waste of 10 years at ½ Rupee.

ALIENATED LANDS.

Those alienated from the tulput were exempt from payment if cultivated by the owners, excepting such as might be held by Patels and Government Ryuts, which, as well as any other cultivated by the latter classes, were subject to the suwadeea tax of one-third the sum, equivalent to the Government beegotee for similar crops. The chakureea lands were free under any circumstances, in consideration of services performed.

The wanta land, in actual possession of, and cultivated by the owners, pays a sulamee of ½ Rupee per beega; such as is sold or mortgaged to wanta Pateedars pays 2 annas, and to Government Ryuts 10 annas; though the latter cultivating any wanta not their own property pay, instead of sulamee, the usual suwadeea of one-third the Government beegotee.

VEERAS.

Haturee, or Shop Tax on grain-dealing Buneeas	Rs.	72½
Ghee Tax on dealing Buneeas.....		2
Ghor, or Cattle Tax.....		18½
Tax on Dhers, whose perquisites are the skins of dead cattle, and who are occupied in making coarse cloths..		70
Havaldaree fee on the produce of Alienated Lands		11¾
Wutao of 1 per cent. on the Ryuts' payments to Government, to meet loss by deficient and bad coin.....		73½
Lowana, or Green Grocers' Shop Tax.....		6½
Lowana, further Tax for Farm Manure used in fuel....		21
Ruza Chithee, or reaping Permit-note Tax		2
Wuootha Mela, Tax on Stalls erected during the annual assemblage of people at the Sungum of the Saburmuttee and Watruk rivers at Wuootha.....		2

Kusoombee sookree, of ¾ Rupee per maund of dry flowers, is paid when thecrop is grown.

Mapa is levied at 1½ per cent. on sale of produce; of which 1 per cent. is carried to account of Government, ¼ is paid to the Buneea, whose office it is to weigh the grain, and ¼ is given in durmada or charity.

Of Bopul, a Bajereea Village.

32. The Khalsa village Bopul, of the bajereea class, was assessed by beegotee, the rates varying with the caste of the cultivator, as follows:—

GOVERNMENT LANDS.

The Pateedars and Koonbees, for bajeree, jowar, &c. in goraroo koowetur, (well land,) without reference to class, paid 4 Rupees per beega; and in goraroo pandhur, for the poor land, not irrigated, 4 and 3 Rupees; for rice 6½, and wuree or coarse rice, 4 Rupees per beega.

The Kolee Ryuts, in the same manner, paid for bajeree and other dry grains, in both the koowetur and pandhur alike, 2 Rupees per beega.

The Pateedars, Koonbees, and Kolees alike paid for fallow wheat and barley 6, and after wheat and barley 3 Rupees; for sugar-cane 13 Rupees; and for vegetables 8 Rupees per beega.

ALIENATED LANDS.

The vechaneea and guraneea, alienated from the tulput, now in possession of the Godhavee Guraseeas, and cultivated by Pateedars and Koonbees, paid as sulamee on goraroo lands generally, for bajeree and other dry crops, 3 Rupees per beega, and on kaurda, or rice lands, 5½ Rupees. The Pateedars and Koonbees, for similar lands in their own and the Kolee Ryuts' possession, paid generally 2 Rupees per beega; when cultivating the otherwise free vechaneea land of Bhats and Brahmuns, they paid as suwadeea 1¼ Rupee and 33¼ reas, equal to a third of the tulput beegotee. The Pateedar Patels, on their own pusaeeta land, paid 2¼ Rupees per beega as sulamee.

The Kolees, cultivating their own tulput vechaneea and guraneea land, paid as suwadeea 1 Rupee per beega for dry grains, and 1½ Rupee for rice.

The Wuswaeean establishment (artizans, &c.) enjoyed their lands entirely free.

VEERAS.

Pateedars and Koonbees paid per plough 4½ Rupees; in all	Rs. 200
Buneeas paid the fixed sum of	2
Tailors	4
Graziers	2
Rawuleeas, (Thread and Tape-makers)	5
Potters	4½
Dhers, on account of the skins of dead cattle collected by them, 28, and as Tile-turners 4½ Rupees; in all	32½

Nature of the Beegotee Rates.

33. So great a variety of circumstances connected with the general state of the villages, and in particular the extent and nature of the alienated tenures, affects the rates of beegotee, that it is difficult to offer any decided opinion upon them, as too high or the contrary, or to say how far they may be adapted to improve the condition of the people, and promote agricultural advancement. In many instances where the beegotee on the Government lands appear disproportionately high, it will be found that extensive alienations are held, or cultivated, on advantageous terms, by the Patels and Ryuts, from which resource they are enabled to pay higher rates on the

Government land they cultivate. It may, however, be observed, that sufficiently marked distinction does not exist between the rates of irrigated crops in those villages where water is at great depth from the surface, and consequently difficult to be procured, and those of the fine rich bhata tract, where it is obtained with so little expense and labour; and the beegotees on the fallow (*i. e.* no khurreef or monsoon crop preceding) rubbee, and second or after rubbee of wheat and barley in the villages of the Sanund Tuppa, are generally complained of as too high. Several of these villages possess a fine agricultural population, who, after cultivating to the utmost their own lands with dry grain crops, have sought employment in neighbouring villages of the Duskroee Purgunna, where they have brought extensive waste lands under tillage; but the improving condition of the villages generally is fast doing away with this resource, and they have now only to look to the introduction of superior produce upon their own lands, by means of extended irrigation.

Useful application of the Purgunna General Statement in forming a correct Estimate of them.

34. In order to form a correct estimate of the nature of the beegotee rates and the assessment generally, it is necessary that the proportion of alienated land, the description of people by whom it is held, and the payments made from it as sulamees and suwadeeas, should be maturely considered. For this purpose a reference to the Purgunna Supplemental Statement No. 1 will be found particularly useful, as it contains the aggregate amount of alienated land held by each several class of people; the total of the Government lands; and the average rates of payment struck from the gross Revenue on the total arable land, and the total area of every village.

Number of Wells.

35. The number of wells ascertained by the Survey to be in actual use throughout the whole of the Khalsa villages is 1,976: of these 760 are exclusively on the Government tulput lands, and 1,216 on the alienations under various tenures, both from the tulput and wanta. There are out of repair 338; of which 175½ are Government, and 162½ alienated; the estimate for the repair of the whole being 69,681 Rupees.

Want of an uniform System for granting Gunwuts.

36. The subject of wells having been entered into in so detailed a manner in the report on the Duskroee Purgunna, it may be sufficient here to state that the suggestions advanced on that occasion bear reference as well to the Dholka Purgunna, in which the absence of any defined rule for granting gunwuts adapted to meet the localities of so extensive a tract of country is equally felt. In the estimation of the Native Revenue Officers, the same conditions are supposed to be applicable to the remote parts, where water is so distant from the surface, as to the kusba of Dholka, and the maleeat tract, where the expense of wells is so comparatively trifling, and the return from them so great and so certain.

Tables of the aggregate and proportional Resources.

37. The aggregate resources of the Khalsa villages of the Dholka Purgunna are exhibited in the following Table 1, and the proportions to a square mile and to a British statute acre in Table 2:—

Table 1.

Square Miles.	Villages.	Houses.	Souls.	Black Cattle.	Horses.	Sheep & Goats.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.
dcls.									*Rupees.*
243·27	66	21225	60011	33567	446	1821	5879	1929	202144

Table 2.

	Houses.	Souls.	Black Cattle.	Ploughs.	Carts.	Revenue.
						Rs. q. r.
1 Mile ...	87	247	138	24	8	830 3 78
1 Acre	$\frac{1}{7}$	$\frac{2}{5}$	$\frac{1}{5}$	$\frac{1}{37}$	$\frac{1}{83}$	1 1 19

These tables include the population of the kusba of Dholka, which is not wholly agricultural, but derives its subsistence entirely from the produce of the Purgunna. A portion might be considered to belong to the Talooka, as much as to the Khalsa villages; but the difference would be so trifling that a division is not conceived necessary for the purposes here required.

Table of the average Net Revenue per Beega and Acre.

38. The following shows the average proportion of the net Land Revenue (taking the mean of the last six years) paid per beega and acre in Rupees, and per acre in English money (estimating the Rupee at 2*s.* 3*d.*) by the 66 Khalsa villages:—

On total Cultivated Land, Government and Alienated.	On Government Cultivated and Arable Land.	On total Cultivated and Arable Land, Government and Alienated.	On the Total Area.	
Rs. q. r.	*Rs. q. r.*	*Rs. q. r.*	*Rs. q. r.*	
1 2 37	1 2 16	0 3 42	0 3 5	Per beega.
2 2 85	2 2 49	1 1 82	1 1 19	Per acre.
£ s. d.	*£ s. d.*	*£ s. d.*	*£ s. d.*	
0 6 1¼	0 5 10¾	0 3 3¼	0 2 11	Per acre.

Tables of the Cultivated, Arable, and Unproductive Land; and of the wet and dry Tillage.

39. The actual state of tillage in the Khalsa villages at the period of Survey is exhibited in the subjoined tables—No. 1 containing the aggregate amount of cultivated, purtur, arable, waste, and unproductive land, and No. 2 the proportion of the cultivated and purtur under wet and dry tillage. Minute details of the information contained in these and the subsequent tables will be found in the eight general statements framed for the Khalsa portion of the Purgunna:—

Table 1.

	Beegas.	w.	ww.	Acres.	r.	p.
Cultivated	126798	3	19	74518	2	28
Purtur, or land not cultivated during last season	12696	18	3	7461	3	25
Ditto ditto from 1 to 6 years.	25181	18	6	14799	1	6
Ditto ditto for more than 6 years	23073	18	14	18849	2	31
Arable waste, never before cultivated	39032	6	2	22939	0	15
Disputed land, not yet adjusted.. ..	394	16	5	232	0	4
Total cultivated and arable land..	236178	1	9	138800	2	31
Unproductive waste	28743	10	14	16892	1	29
Total area of the Khalsa villages..	264921	12	3	155693	0	20

Table 2.

	Cultivated.						Purtur.					
	Beegas.	w.	ww.	Acres.	r.	p.	Beegas.	w.	ww.	Acres.	r.	p.
Wet	33559	4	0	19722	2	12	8925	16	4	5245	2	24
Dry	93238	19	19	54796	0	16	61026	18	19	35865	0	38
Total	126798	3	19	74518	2	28	69952	15	3	41110	3	22

Table of Produce.

40. The staple crops, and such as are in any degree of a superior order, are exhibited separately in the following abstract :—

	Beegas.	w.	ww.	Acres.	r.	p.
Bajeree and jowar, with kuthol or the pulse crops (urud, wal, chora, guwar, sunn, mug, mut, &c.) intermixed ..	68862	11	14	40470	0	32
Grains, and other produce of minor order, chiefly dry, such as baota, buntee, kodra, chuna, toowur, tul, deewula ..	5256	4	3	3089	0	7
Rice, (dangur and sathee,) chiefly irrigated	13149	19	1	7728	0	26
Wheat, barley, kang, cheena, jowar in fallow land, irrigated rubbee	10437	11	10	6134	0	17
Wheat, chaseea, raised without irrigation	21682	1	8	12742	1	31
Sugar-cane	2028	0	0	1191	3	15
Tobacco, entirely irrigated	169	6	0	99	1	39
Cotton (kupas)	818	17	9	481	0	39
Kusoombee (a dye)	886	12	10	521	0	10
Kel (plantains)	490	14	7	288	1	23
Ginger, garlic, chilies	497	12	1	292	1	30
Garden produce generally	1109	6	17	651	3	32
Fallow land..	1409	6	19	828	1	2
Total cultivation..	126798	3	19	74518	2	28
Second, or after crops of wheat, barley, kang, cheena, on the above lands..	6124	13	9	3599	1	30
Third, or after crops of kang, cheena, &c.	98	19	2	58	0	24

Extent of Maleeat Cultivation not equal to the natural advantages of the Country.

Of the above, sugar-cane, plantains, ginger, &c., garden produce, the principal portion of the fallow land, and the irrigated wheat, may be classed under maleeat cultivation ; but the aggregate of these is by no means of such an amount as might be expected in a tract of country so remarkably fertile, and possessing natural advantages equal to render it a perfect garden. The culture of superior crops depends very much on the means and resources of the people, and frequently, when there can be no doubt as to the greater profit to be derived, those only who have the command of capital can attempt it. A single Pateedar or Ryut seldom cultivates a field of maleeat from his own individual means, but commonly three or four engage conjointly in the undertaking, making up between them the requisite number of ploughs, or rather cattle to perform the labour, which in its several branches (particularly that of irrigation) is very heavy : the extent, therefore, to which superior produce is raised, will at all times depend upon the easy circumstances of the Ryuts, and the moderate nature of the beegotee rates. Soil adapted to the purpose is to be found in every village of the maleeat class, but the means of irrigation are not sufficiently at command. Any measure that tends to increase the number of wells would be productive

of the greatest benefit to the country: they are an invaluable resource in seasons of scarcity from scanty rain; and although the ground is never equal to reproduce annually sugar-cane, and other valuable but exhausting crops, yet it generally bears in the intermediate seasons two grain crops in the year, each superior to the single one that could be obtained from it in its dry state.

Manure scanty; Hemp and Indigo deserving of attention.

41. The want of manure is equally felt here as in the Duskroee Purgunna, the only supply obtainable being the stock of dung accumulated in the Ryuts' farm yard, which is mixed with black mould, dug from the beds of tanks, in nearly equal parts. Sunn, or hemp, ploughed into the ground after attaining about half growth, would form a valuable manure for the wet lands, and the introduction of indigo on the dry, for the purpose of enriching the soil, is deserving of attention, and such encouragement as would be necessary to reconcile the Ryut to the innovation. In the Alaveesee, sunn is raised on the dry grain lands of light soil at the first fall of rain, expressly for manure; but it is necessary to observe that the rain is more certain there than in the central and Western parts of the Province, where it is necessary to take advantage of the early showers to sow the bajeree crops: this artificial substitute for manure, however, might not be unsuitable to the irrigated lands, which are intended for late crops, and the store of dung might then be husbanded and increased for the rice and dry grain lands. The sunn, if allowed to mature, exhausts the soil; but this is not the case with indigo, as the leaves and vegetable matter which fall from it in its growth are so beneficial as to insure an excellent grain crop the following year; and the dregs from the vats in which the plants have been steeped are exceedingly enriching to the soil.

Table of Alienated Lands as found by the Survey in possession of each class of people.

42. A useful record of the alienated lands of the Khalsa villages will be found in the Purgunna Supplemental Statement No. 1, where they are arranged under the several castes and descriptions of landowners, by whom they were held at the period of the Survey. The following table is a general abstract of this statement:—

	Beegas.	w.	ww.	Acres.	r.	p.
Held by Koonbee Pateedars and Ryuts (the lands being chiefly vechaneea and guraneea)	7553	13	14	4439	1	2
By Buneeas and Sahookars (entirely vechaneea and guraneea)	2121	19	19	1247	0	14
By Brahmuns, Khutrees, &c. (chiefly pusaeeta, vechaneea and guraneea) ..	20964	17	14	12320	0	0
By Muzmoodar and Ameen Patels (chiefly pusaeeta)	1582	8	18	929	3	39
By Rajpoots and Guraseeas (chiefly wanta)	40236	4	13	23646	2	21
By Syuds, Seepaees, and other Moosulmans (chiefly vechaneea)	21446	5	10	12603	3	19
By Kolees, Pugees, &c. (chiefly pusaeeta and chakureea)	6051	11	1	3556	1	34
By Gosaeens, Byragees, Temples, &c. (chiefly pusaeeta)	1913	19	5	1124	3	12
By Wuswaeeya, and other village establishment (chiefly chakureea) ..	3241	1	8	1904	3	1
Total alienated	105112	2	2	61773	3	19
Government unalienated arable lands ..	131065	19	7	77026	3	11
Unproductive waste	28743	10	14	16892	1	29
Total area	264921	12	3	155693	0	20

Tullatees' estimates of the Alienated Lands.

43. The alienated lands according to the Tullatees' accounts for A. D. 1819-20 stood in comparison with the tulput as follows:—

	Beegas.	w.	ww.	Acres.	r.	p.
Alienations from the tulput, under vechaneea, guraneea, pusaeeta, runwuteea, butamuneea, &c.....	47311	17	0	27808	1	34
Wuzeefa.....	3369	10	0	1980	0	38
Wanta.....	36042	17	15	21182	0	36
Total alienated..	86730	4	15	50970	3	30
Tulput unalienated arable land	76930	14	1	45211	3	7
Unproductive waste.....	51483	19	17	30256	3	22
Total area.....	215144	18	13	126439	2	19

Comparative view of the Alienated Lands in the Duskroee and Dholka Purgunnas.

44. A comparative view of the amount of alienated land held under each separate tenure in the Dholka and in the Duskroee, according to the Tullatees' accounts, will show the relative condition of the two Purgunnas in this point of view:—

	Dholka Purgunna.				Duskroee Purgunna.			
	Nukra or Free.		Paying Sulamees and Suwadeea.		Nukra or Free.		Paying Sulamees and Suwadeea.	
	Beegas.	w.	Beegas.	w.	Beegas.	w.	Beegas.	w.
Tulput guraneea	3268	8½	15479	4	7310	11½	22430	12½
Ditto vechaneea	3760	4½	10742	7½	7755	6¼	29525	16½
Ditto pusaeeta	5795	8½	2293	3½	7193	2½	3077	19½
Ditto chakureea	3925	16¾	325	19	5066	18¼	812	10
Ditto runwuteea, butamuneea, and seer	1384	9	342	15¾	2030	11¼	853	3¼
Wuzeefa possessed by the hereditary owners	121	10	3224	0	8223	5	12352	3¼
Ditto mortgaged, and otherwise disposed of	16	0	8	0	2367	10	1450	5
Wanta possessed by the hereditary owners	7902	16½	11681	15	2967	3	7054	18¾
Ditto mortgaged, and otherwise disposed of	11296	3½	5162	2¾	1675	12½	2069	13
Total alienations..	37470	17¼	49259	7½	44790	0¼	69627	1¾

Great extent of Alienated Land in the Dholka.

45. The amount of alienated land, according to actual measurement, as exhibited above, will be observed to be exceedingly great—no less than 44½ per cent. on the whole of the arable land, and 39 per cent. on the total area of the Khalsa villages. It must be particularly noticed, however, that this amount is merely that claimed and in actual possession of the claimants at the time of the Survey, no strict scrutiny or minute inquiry having been attempted; and it exceeds the estimated quantity in the Tullatees' accounts by 18,382 beegas. It may, perhaps, at first sight, appear hardly credible, that so fine a tract of country, embracing the choicest portion only of a large Purgunna, should, in the average rate of its payment to Government, show a result short of that of the Duskroee, the land of which is nowhere better, but in many parts greatly inferior. This is caused chiefly by the very large proportion alienated; the amount in the 66 Dholka villages (in area 264,922 beegas) being 105,112 beegas; while in the 146 Duskroee villages (in area 375,326 beegas) it is beegas 128,457, inclusive of the 11 entirely alienated villages, which deducted, would leave only 98,340 beegas as the gross alienations in the 135 Government villages.

Occasions the average rate of payment to Government to fall short of the Duskroee,

Although the payments as Sulamees and Suwadeeas are very considerable.

46. A considerable Revenue, however, is derived from the alienated lands by sulamees and suwadeeas, particularly those bearing maleeat crops, which, whether free or liable to sulamee, are taxed frequently to an amount equalling a third or a half of the Government beegotee on similar crops; the average being for sugar-cane about 8½, plantains 6¾, and ginger &c. about 6 Rupees per beega. The subjecting private estates, otherwise free, to such heavy exaction, is a necessary measure, in order to secure to the Government unalienated tulput a due proportion of attention and manure, which, for the sake of the lighter rent, would be otherwise diverted to the alienated lands.

Table of Population.

47. The population of the Khalsa villages, inclusive of the town of Dholka, according to a minute census taken in the progress of the Survey, and of which a detail is given in the Purgunna Statement No. 6, appears to be as follows:—

	Males.	Females.	Total.
Koonbees, Lewa and Kurwa	6248	5035	11283
Kolees	3847	3073	6920
Rajpoots	1873	1472	3345
Brahmuns	2795	2535	5330
Bhats, Charuns, and Veeas	1162	969	2131
Buneeas	2984	2653	5637
Artizans	3049	2671	5720
Dhers, Bungees, &c.	2508	1996	4504
Various other castes	2377	1839	4216
Total Hindoos	26843	22243	49086
Mahomedans	5204	5073	10280
	32047	27319	
Slaves			645
Total			60011

Houses and Stock.

The number of houses occupied by this population is 21,225, of which 19,496 are tiled, and 1,729 thatched. The cattle and stock, generally, were found to be in amount as follows:—oxen and calves 15,600; cows and calves 7,897; buffaloes and calves 10,070; goats and kids 1,821; horses 446; carts 1,929; ploughs 5,879½.

People.

48. The Koonbees are nearly equally divided between the Kurwa and Lewa sects, the former slightly exceeding the latter. More than half of the whole body rank as Pateedars, and the remainder are simple Kheroots. They occupy 3,912 houses; possess 2,374½ ploughs, and 635 wells; and it is estimated cultivate 52,091 beegas, out of 126,798 beegas, the aggregate of the cultivated lands according to measurement. The Kolees are of the Tulubda class, and chiefly cultivators. The Rajpoots are also, for the most part, cultivating Ryuts: a few share the chakureea duties with the Pugees, and out of the whole number a fifth are Guraseeas or landholders. The Buneeas, Artizans, and Moosulmans, considered relatively to the Khalsa tract alone, perhaps exceed the usual proportion in other well peopled Purgunnas, as the inhabitants of the kusba are entirely included, of whom one-half might be considered as connected with the Talooka villages. The slaves rather exceed in proportion those of the Duskroee Purgunna; but are almost exclusively domestic servants, and few are employed in agriculture. The several divisions of the above population stand proportionally to each other

in twentieth parts as follows:—Koonbees, $\frac{3}{20}$; Kolees, $\frac{2}{20}$; Rajpoots, $\frac{1}{20}$; Brahmans, $\frac{1}{20}$; Bhats, &c. $\frac{1}{20}$; Buneeas, $\frac{2}{20}$; Artizans, $\frac{2}{20}$; Dhers, $\frac{1}{20}$; Moosulmans, $\frac{3}{20}$; various other castes, $\frac{1}{20}$; Slaves, $\frac{1}{20}$. The males exceed the females in the ratio of about 6 to 5; the number of souls to each house averages rather less than 3; to each plough there are acres 12 2r. 27p. of cultivated land, and each plough pays an average Revenue of Rs. 24-1-51, or £3 17*s.* 4*d.*

Involved circumstances of the Pateedars and Patels.

49. The Patels and Pateedars of most of the villages are involved to Sowkars and money-brokers, both personally and by bonds, contracted in the name of the village community. The suits which are frequently filed against them for the recovery of these debts, by which their property is sold, are detrimental to the prosperity of the country, and the low state of their credit checks any attempt at agricultural advancement, which cannot be expected without the free command of capital.

The Talooka Villages; their nature and extent.

50. The Talooka villages of the Dholka Purgunna include an area much larger than that of the Khalsa; but as they embrace all the poor, uncultivated, and ill-peopled parts, and but very little of a superior and more fertile nature, their value can never be rendered, under any system of management, at all equal to that of the Khalsa. They occupy all the Western side of the Purgunna, and their aggregate area is shown below:—

	dcls.		
Square British miles.....	652.75		
		w.	ww.
Standard beegas.....	710847	15	5
		r.	p.
British statute acres.....	417761	2	36

Two descriptions of Talookdars: Guraseeas and Kusbatees.

They are held by two descriptions of persons, the Guraseeas and the Kusbatees. The Guraseeas are the descendants of the original Rajpoot rulers of the country, and their Talooks are supposed to have been formed at the first rise of the Moosulman power: about the same period, also, the division of the wanta, or personal estate of each chief, probably took place, to the extent of a fourth or a half, in many villages, and a certain portion, more or less, in nearly all. The Guraseea Talookdars are all Waghela Rajpoots, and of the same family, but divided into two branches, the head of the elder of which is Kursun Sing of Sanund and Koth, and of the younger, Ram Sing of Gangur. These two principal Talooks have been constantly undergoing subdivision among sons and brothers, but have never, with the exception of the Kusbatees, passed out of the family; and though the relationship of the inferior Talookdars is often very remote, it can in every instance be satisfactorily traced. The Godhavee Guraseeas, who hold at present two villages, claim to stand alone, as, though descended from a common stock, their family has always been separate since their first settlement in the country. The Guraseea villages may, at the present day, be summarily classed as follows:—

The Guraseeas are all of one Family, but in two principal Branches.

Number and Distribution of their Villages.

Held by Kursun Sing himself	21	villages.
Held by his inferior relations	16	„
Of the elder branch.....	37	„
Held by Ram Sing himself	11	„
Held by his inferior relations	14	„
Of the younger branch....	25	„
Held by the Godhavee Guraseeas	2	„

The Kusbatees have risen to consequence at a recent date.

51. The Kusbatees are Moosulman converts, who were originally pure Rajpoots, and derive their appellation from their residence in the Kusba, or town of Dholka.

They are supposed to have been converted about the time of the celebrated Mahomed Begra. They have gradually amassed wealth by "Munotee," and other usurious transactions, and they have contrived, by various indirect methods of sale and mortgage, to possess themselves of the Talooka right to 43 villages: the wanta in most of them is reserved to the original proprietor, but it has sometimes been mortgaged likewise. The principal Kusbatee is Bapoo Meean, whose family frequently distinguished themselves as warlike characters in the troubled period that succeeded the downfall of the Moosulmans, and were often of effectual service in preserving some little degree of order in the country. This part of their occupation is now gone; and though, of course, their claims are distinctly and equally valid, the Kusbatees are only regarded by the Guraseeas as interlopers upon their rights. Bapoo Meean is the most extensive proprietor of the District, holding 27 villages, some of which he has perhaps abstracted from the original Khalsa portion. The other Kusbatee Talookdars are Surdar Mahomed Khan (Chudoo Meean); Hyat Khan (Bawa Sahib); Fez Deen Khan, and Deena Meean, amongst whom 16 villages are divided.

Management of the Talooka Villages.

52. The internal management of their villages is left entirely to the Talookdars; Tullatees were sent to them in 1874 Vikramajet, or A. D. 1818; but at the expiration of two years they were removed by the special order of Government, and no further interference has since been attempted. A Revenue settlement is annually made by the Collector, and occasionally leases are given for a term of years; but the whole possessions of each person are always assessed under one "Ankhra" or individual sum, the apportioning of which among his several villages rests exclusively with himself. In the event, however, of a Talookdar not fulfilling his engagements, Government has the power of attaching his villages, and making the collections directly by its own Officers, subsequently allowing the proprietor the per-centage or assignment which is his hereditary right. This per-centage was formerly 20, but in 1821 it was increased, and fixed at 30 per cent. on the gross collections.

Information equally minute with the Khalsa not obtained for the Talooka.

53. The orders of Government, conveyed to the Collector of Ahmedabad under date 6th January 1823, distinctly forbade the extension of any detailed land measurement into the Talooka villages of the Dholka Purgunna, and restricted the operations of the Survey to a boundary and topographical plan of each. Minute tables and statements cannot therefore be furnished for them, nor is data possessed for forming a perfectly accurate opinion of their relative and individual resources. The Tullatee's accounts are useful records; but as there is no collateral information to check them, no sufficient dependence can be placed upon them. During the progress of the Survey, however, every village was personally visited by one or other of the European Officers employed, and all information procurable relative to the present condition and agricultural circumstances of each was collected and embodied in the volume of remarks. The following summary of the actual size and nature of the several Talooks may perhaps afford a useful view of the manner in which the country is divided, and give some idea of their relative value. The jumabundee of single villages is extracted from the Tullatee's numoonas for 1877 Vikramajet (A. D. 1821), the latest year for which they were prepared.

General summary of the Size and Condition of each Talook:

Kusbatee Bapoo Meean's;

54. The Talook of Mulek Bapoo Meean (Kusbatee) is composed of 27 villages, the aggregate area of the whole of which is found by the Survey to be beegas 178,773, or acres 105,064. These villages are much scattered, and consequently embrace great varieties of soil and productions: the most valuable are situated in the neighbourhood of Dholka, and the poorest upon the borders of the Nul. The extremes are great; as by the Tullatee's accounts for 1877, or A. D. 1821-22, it appears that the village of Kuooka paid for that season a jumabundee of 12,806 Rupees on an area of 8,221 beegas; while by the same accounts Doorgee (in area 9,696 beegas) paid 415 Rupees, and Surla (in area 3,964 beegas) 311 Rupees only. Many of the villages contain more thatched than tiled houses, and one (Menee) has no tiled house whatever, the whole consisting of thatched huts. The greater part are ghoonwar or wheat villages, but three are classed as maleeat, and four as dangureea or rice. The embarrassed circumstances of Bapoo Meean must alone prevent his paying any attention to the condition of his villages, and his Karbarees do not appear possessed of any spirit or ability; but the Talook is a very fine estate, and capable of great improvement. This proprietor holds also 3 villages in enam, which are even more neglected than those of his Talook.

Kusbatee Chudoo Meean's;

The Talook which passes under the name of Luteef Khan (Kusbatee), and is at present held by Chudoo Meean, contains 7 villages, embracing an aggregate area of beegas 26,730, or acres 15,709. Of these, one is classed as maleeat, two as bajereea, and four as wheat: they are detached from each other, but all situated to the Southward and Westward of Dholka, and two are on the opposite or East side of the river adjoining the Cambay Purgunna. The village of Warna appears, by the Tullatee's accounts, to have paid in 1877 a jumabundee of 5,515 Rupees, and its area by the Survey is found to be 12,060 beegas. The other villages seem at that time to have been pretty equal in value, and to have paid from 1 to 2,000 Rupees each. They are generally of a comfortable description, and the Talook altogether is possessed of great resources. Chudoo Meean also holds in enam the village of Veerpoor, to the Southward of Dholka.

Kusbatees Deena Meean and Hyat Khan's;

Deena Meean and Hyat Khan (Kusbatees) jointly hold 9 villages, the total area of which is equal to beegas 25,988, or acres 15,273. One of these (Khalekpoor) is deserted; two are situated on the Cambay side of the river, and the others lie in the immediate neighbourhood of Dholka. Two are classed as maleeat, but all the rest fall under the general denomination of ghoonwar, or wheat. The most valuable village appears to be Doogaree, the area of which is 3,147 beegas, and in 1877 it paid, by the Tullatee's accounts, 3,010 Rupees as jumabundee. Two other villages paid above 2,000 Rupees; Khalekpoor (in area 672 beegas) paid only 251 Rupees, and Kuwula (4,623 beegas) only 385 Rupees; but of the whole number three only paid less than 1,000 Rupees. It is evident, therefore, that this Talook is a valuable one, and it is capable of great improvement. Deena Meean and Hyat Khan also hold in enam the little village of Kadeepoor, adjoining the lands of Khalekpoor, to the South-west of Dholka.

Guraseea Kursun Sing's;

The Talook of Kursun Sing (Guraseea), generally called the Bholad Talook, consists of 21 villages, much scattered: several are situated about Sanund, Kulana lies on the North-west frontier, Dewurthul adjoins the Nul, and Bholad is the Southernmost village of the whole Purgunna. Eight of these villages are classed as bajereea, six as rice, and seven as wheat. The largest in every point of view is Koth: it contains an area, by Survey, of 33,556 beegas; and paid in 1877, by the Tullatee's accounts, a jumabundee

of 20,019 Rupees. Nearly the whole of the lands are under cultivation, and the town itself is large and strong, with a population of 2,464 souls. Four villages besides Koth paid in 1877 a Revenue exceeding 5,000 Rupees, but of the whole Talook nine paid less than 1,000 Rupees: Wartee, though containing an area of 2,483 beegas, and of which the greater part is arable, paid only 104 Rupees. The aggregate area of the whole proves by the Survey to be beegas 155,481, or acres 91,375. Kursun Sing usually resides at Sanund, where he possesses an extensive tract of wanta, but he has also a house and establishment at Koth. The Talook contains some villages of a very inferior order, but those adapted for rice cultivation are capable of great improvement by means of tanks and bunds, and in some parts of wells; but very little care, however, appears to be bestowed on any portion of them.

Guraseea Ram Sing's;

Ram Sing, of Gangur, holds 11 villages, most of which are situated in the neighbourhood of Gangur itself, and not so much scattered as the other Talooks: their aggregate area, by the Survey, is equal to beegas 114,016, or acres 67,006. Gangur is the best village, as in 1877 it appears by the Tullatee's accounts to have paid a jumabundee of 4,760 Rupees, and its area is 24,078 beegas; the area of Seeal (36,796 beegas) is much greater, but at least three-fourths of this are wholly unproductive, and the Revenue for the above year was only 2,660 Rupees. Five of the eleven villages paid under 1,000 Rupees: two are considered bajereea, but the rest are all of the wheat class. Ram Sing resides at Gangur, which is a large place, though inferior to Koth, containing 1,276 inhabitants. This Talook is much inferior to the others, and so large a portion of the land is salt and unproductive that it could not under any system of management be much improved.

Dormant claim of Ram Sing on the deserted Village of Roonden or Sokura.

Ram Sing has a dormant claim upon the deserted village of Roonden or Sokura, the site of which will be found near the Western boundary of Dudooka. This has, however, been for a long time considered within the limits of the Veerumgam Purgunna, and the lands have merged in those of Jetapoor: a revival of the claim would lead to intricate disputes, and could be productive of little advantage, as the land is chiefly khar, and almost useless for any other purpose than the grazing of cattle.

Guraseea Jeejeebhaee's;

Jeejeebhaee of Ooteleea holds 6 villages, three of which are situated on the South-west frontier, and three in the neighbourhood of Sanund: two are of the rice, one of the bajereea, and three of the wheat description. The village which by the Tullatee's accounts paid the largest Revenue in 1877 Vikramajet is Boroo (nana), its jumabundee for that year being 4,691 Rupees; but the area of Boroo (9,014 beegas) is exceeded both by Ooteleea (11,031 beegas) and by Lodula (12,517 beegas). The aggregate area of the whole Talook by the Survey is beegas 40,023, or acres 23,521. Jeejeebhaee resides at Ooteleea: his rice villages are small in extent, but improvable by greater attention to the tanks; his wheat villages are probably cultivated as well as the nature of the soil will admit.

Inferior Guraseeas'.

Bapabhaee holds 3 villages of the wheat class, the aggregate area of which, by the Survey, is beegas 20,547, or acres 12,075. Two of these lie to the Westward of Sanund, and, though of inferior soil, are greatly improvable by the extension of cultivation, for which sufficient population is at present wanting; the third is a poor place on the Southern frontier. Bapabhaee resides at Mukheeaw, and is a respectable man.

Desuljee and Morjee hold three villages, situated in the North-western part of the Purgunna: one of them (Eeawa) is of the rice description, and a

great portion of its lands are overrun with jungle: the other two (Bukrana and Govunda) are classed as wheat, but the soil of Govunda is of a thulleea or undulated character. The aggregate area of the three is beegas 17,623, or acres 10,357; and they are all highly improvable. Morjee resides at Bukrana, and Desuljee at Eeawa.

Ruwabhaee Morjee holds two villages, of which one (Chekhla), to the North of Sanund, is of the bajereea class, and much overrun with jungle, and the other (Dheengra), on the South-western frontier, is of the ghoonwar or wheat class: the first is very improvable, but the second, from the nature of the soil, is not. Ruwabhaee resides at Dheengra, and is a man of character among the people.

Wursabhaee and Ruwabhaee hold two villages (Weecheea and Kodaleea), which were originally united in one: they are situated to the Westward of Dholka, and from the scarcity of population are very loosely cultivated. The Talookdars reside at Weecheea.

Keemabhaee holds two villages, of which one (Moreea), situated South of Sanund, is of the dangureea class, and very valuable; the other (Koonwar), to the Westward of Sanund, is of the wheat description, and in a very backward state of cultivation. Keemabhaee resides at Koonwar, and is a respectable man, but of little spirit or energy.

Manabhaee and Bapabhaee hold conjointly two villages of the wheat class. One (Metal) lies towards the Nul, and its soil is of the thulleea or undulating character; the other (Boroo Mota) is the Southernmost village on the banks of the Saburmuttee: the last from its great extent is the most valuable, but Metal is also a fine productive village. The Talookdars reside principally at Boroo. They lay claim to a third village, Buhanpoor, which they assert formed originally part of their Talook: they point out its site at a small mound called the Betreea Dera, and its lands as extending into Peepulee (Dundooka Purgunna) beyond the Bhogawa. This claim, however, seems very vague: the village has been deserted for a century, and is lost; and the Bhogawa is conceived at the present day to form the most natural and proper boundary.

Vague claim preferred on Land of a deserted Village beyond the Bhogawa.

Kandabhaee holds Dhunala, a poor village lying on the South side of the Bhogawa: a great part of the lands are strongly impregnated with salt, and unproductive. Dhunala was once the head of a large Talook, and the Guraseeas have still extensive wanta possessions.

Moolajee holds the fine village Godhavee, situated to the Northward of Sanund. The Guraseeas of this place were once possessed of several other villages, and trace their family as a distinct branch back for many generations.

Morjee holds the Talooka right of Doomalee, a poor village on the borders of the Nul; but he has mortgaged it for a term of years to Hurry Sing, the Thakor of Leemree in Kateewar.

Purtabhaee holds the large and rather good village of Chhubasur, situated to the Northward of Gangur.

Sooltan Sing holds the village of Lodreeal, of the rice description: it is small, but improvable by tanks and bunds.

Sudajee holds Kanetee, a poor but improvable village adjoining Sanund.

Veerajee holds Khora, a very ill-cultivated, but highly improvable village, on the North- western frontier.

Uloobhaee holds Koondul, a rather good village in the North-western part of the Purgunna.

Maloobhaee holds Wasuna Eeawa, near Sanund. It is improvable, but labours under the disadvantage of not being able to procure water.

Dosabhaee holds Lekhumba, a small rice village near Sanund.

Tejabhaee holds Ganol, on the bank of the Saburmuttee, below Eegolee. It is a fine and valuable village, and presents a wide field for improvement.

Fooljee Jetajee holds Guroreea, a small village on the North-eastern frontier. It was for some time under the Khalsa managment, but the right of the Guraseeas has been lately recognised.

Table of the aggregate Resources of each Talook.

55. During the progress of the Survey an exact census of the population, cattle, and stock was taken for each Talooka village, in a similar manner to the Khalsa: from this is constructed the following table, exhibiting the aggregate resources of each of the principal Talooks, and of the whole united; the alienated villages (Enam and Kheratee) are added in order to bring into one view all that portion of the Purgunna which is not managed by the immediate Officers of Government:—

Talookdars and Proprietors.	No. of Villages.	Aggregate Area.							Houses.	Souls.	Horned Cattle.	Horses.	Sheep and Goats.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.
		Square Miles. dcls.	Beegas.	w.	ww.	Acres.	r.	p.								*Rupees.*
Mulek Bapoo Meean	27	164·16	178773	2	10	105064	0	14	4714	10859	9029	69	484	1848½	523	72684½
Luteef Khan	7	24·54	26730	15	3	15709	2	5	868	2257	2007	11	166	421	117	14434½
Deena Meean and Hyat Khan ..	9	23·86	25988	8	5	15273	1	2	576	1576	1330	9	94	253½	74	12117
Kursun Sing	21	142·77	155481	12	4	91375	3	4	3623	8871	7023	48	291	1480½	495	60391½
Ram Sing	11	104·69	114015	19	8	67006	2	20	1695	3688	3167	56	167	581½	223	19102¼
Jeejeebhaee	6	36·75	40022	19	6	23521	1	8	855	1963	1458	30	101	315	112	9021¼
The inferior Guraseeas.....	26	151·14	164597	16	15	96733	1	14	2865	7208	5573	68	270	1185½	363	38237¼
Total Talooka....	107	652·75	710847	15	5*	417761	2	36*	15196	36422	29587	291	1573	6085½	1907	225989
Enam Villages of Bapoo Meean .	3	19·36	21085	19	1	12392	0	17	167	369	269	1	..	81½	21	....
Ditto of Luteef Khan..	1	2·57	2809	4	0	1650	3	32	145	382	324	..	4	60½	18	....
Ditto of Deena Meean .	1	0·78	855	0	16	502	2	0	37	100	89	..	..	17½	7	....
Kheratee Villages.....	4	10·10	11005	4	9	6467	2	34	322	909	679	5	27	148	50	....
Total Alienated Villages	9	32·83	35755	8	6	21013	1	5	671	1760	1361	6	31	307½	96	....
Total Talooka and Alienated.	116	685·58	746603	3	11	438775	0	4	15867	38182	30948	297	1604	6393	2003	225989

* Including beegas 5,237 1w. 14ww., or acres 3,077 3r. 9p., involved in boundary disputes, remaining unadjusted between the different Talooks.

Proportional Resources to the Square Mile and Acre.

56. The proportional resources to the square mile and to the acre of the whole of the Talooka villages are shown below :—

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.		
						Rs.	*q.*	*r.*
One square mile.. ..	23	56	45	$9\frac{1}{4}$	3	346	0	84
One acre..	$\frac{1}{9}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	0	2	16

System of Collection pursued by the Talookdars.

57. The Talookdars, with a few trifling exceptions, collect from the Ryuts in kind, and their villages consequently exhibit completely the old bhag butaee system, which prevailed generally prior to the introduction of the beegotee. A minute account was taken with great care from the Patels and people of every village, of the mode and rates of payment on each description of soil and produce ; and the daras or shurestas thus formed are annexed to the remarks. The produce of each cultivator's field is sometimes ascertained by "Kultur," or estimate of the produce while on the ground ; and sometimes by "Makhul," or actual weight in the village "Kulee," or barn. The share considered as the right of Government is very various ; but the most common rates are ($\frac{1}{2}$) one-half, ($\frac{1}{3}$) one-third, and ($\frac{2}{5}$) two-fifths : these appear to be original and old established rates, which the Talookdars have not dared to infringe, but by the gradual addition of extra cesses (termed "Babtees") one by one, of little individual consequence, though often forming a considerable aggregate sum, they have contrived to materially alter the proportional shares of Government and the Ryut. These babtees form a very general subject of complaint among the people, and a reference to the daras in the volume of remarks will show that such complaints are not altogether groundless.

Complaints of the Babtees.

Example in the Dara of Doogaree.

58. The villages are found upon the whole to be pretty uniformly assessed, and the following example for the village of Doogaree will be sufficient to illustrate the system generally :—

THE DARA OF DOOGAREE FOR SUMWUT 1880, OR A. D. 1823-24.

GOVERNMENT LANDS.

From the total produce of dangur, or rice, the following babtees were first deducted :—

Surkaree Babtee.

Seeree ; 1 seer per maund.

Dhuree ; 5 seers from each cultivator's heap.

Purbaree Babtee.

Tolamnee ; $\frac{1}{4}$ seer per maund to the Buneea employed in weighing.

Patel ; 5 seers from each man as a present to the Patels.

Madeo and Kootran ; 20 seers per man as a donation to the village temple, and to feed the village dogs.

Peer ; 10 seers per man to the Baleem Shah Peer.

Rundwara ; 10 seers per man for the support of the Brahmun cook kept for the use of the Talookdar's Karbarees.

Garee ; 5 seers per man for the Talookdar's travelling expenses.

Havildar and Oopuree ; 1 seer per maund to the Officers placed in charge of the grain while in the kulee.

Sipahee ; $\frac{1}{2}$ seer per maund for the man employed on errands and messages relating to the produce.

Wuswaeeya ; ½ seer per maund for the support of the village wuswaeeya, or establishment.

After the deduction of the above babtees, (½) one-half of the remainder was the Government share. Thus of 100 maunds of produce the Ryut's share would be 45 maunds 10 seers, and that of the Government 47 maunds 35 seers ; but of the babtees, two may be considered as appropriated to the Talookdar himself, making the share taken by him equal to 48 maunds 10 seers.

From the general heap of chaseea wheat produce, the cultivators were first allowed 1 maund per beega to cover the expenses of seed, and 10 maunds from every 100 maunds as dareea, or expenses of hired labourers in reaping, threshing, &c. The following babtees were then deducted :—

Surkaree Babtee.

Seeree ; 3 seers per maund.

Dhuree ; 5 seers from each man.

Purbaree Babtee.

Patel ; 5 seers per man.

Madeo and Kootran ; 20 seers per man.

Baleem Shah Peer ; 10 seers per man.

Rundwara ; 10 seers per man.

Havildar ; 1 seer per maund.

Wuswaeeya ; 1 seer per maund.

After all the above deductions, the Government share was (½) one-half of the remainder.

Thus of 100 maunds of produce, 30 would be first returned to the cultivator to cover the expenses of seed and labour ; of the remaining 70 maunds the Ryut's share would be 30 maunds, and that taken by the Talookadar 35 maunds 25 seers.

The Government share of bajeree, kuthol, and other dry grains was (⅔) two-fifths ; and from the Government share only tolamnee was afterwards deducted for the Buneea at the rate of ¼ seer per maund.

From the cheena produce 25 seers per beega were first allowed to the cultivator to cover the expenses of seed and hired labourers ; the Government share was then (½) one-half, and from the Government share alone tolamnee was allowed to the Buneea at the rate of ¼ seer per maund.

Jowar paid a beegotee of 2¼ Rupees.

Kusoombee paid to Government (½) one-half share of the leela or undried flowers ; and in addition each cultivator paid ½ Rupee to the Patels, ½ to the wuswaeeya, ½ to the Havildar, and ½ to the Buneea as tolamnee. The sookuree paid to the Talookdar by the phoolwaleea was 3 Rupees per maund of the sooka or dried flowers.

Waste land newly brought into cultivation remains free of any payment for the first three years.

ALIENATED LANDS.

Land alienated from the tulput as vechaneea paid nothing while the real owner himself cultivated it ; but if it were cultivated by any other person, (⅙) one-sixth share of the produce was paid to Government as suwadeea. The wantree lands paid (⅙) one-sixth share as sulamee.

VEERAS, OR TAXES.

Plough veeras were paid, varying in amount from 2 to 5 Rupees, according to the circumstances of the Ryuts : the Chumars paid 15 Rupees (oodhur) and the Bhurwars 10½ Rupees.

Veeras and Extra Cesses.

59. In addition to the Revenue derived from the share of the produce, there are in most villages veeras or money taxes upon castes and occupations; and in many plough taxes from 1 to 17 Rupees per plough are paid by the Ryuts. An extra cess, under the term of "Bhara," is very generally levied, being a payment in money to defray the carriage of grain to the market where it is to be sold, usually amounting to 2 or 3 Rupees upon every hundred maunds in the Government portion; and a kunguree veera, or cash payment of two or three annas upon every maund of the gross produce, is also sometimes met with. A remarkable rule is in most villages laid down for the exemption from payment of rent, either wholly or in part, of land recovered from waste during the first years of cultivation.

The Bhag Butaee System appears best suited to this poor tract of Country.

60. Upon the whole the bhag butaee system of assessment appears to be that best suited to this poor tract of country, where the people possess no resources to secure them against the effects of bad seasons, and where the profit of even a good crop is never so great as to admit of the cultivator, after the payment of a moderate rent, providing for any future exigencies. The people always express great repugnance to be brought under the beegotee settlement; and though without doubt this arises partially from the greater means they now possess of defrauding the Revenue by embezzlement of portions of their crops, yet in this part of the country there seems to be some other reasonable ground for their attachment to the ancient custom.

Annual Net Revenue for seven years.

61. The annual net Revenue paid to Government by the Talooka portion of the Purgunna since the year 1874 Vikramajet, or A. D. 1817-18, has been as follows:—

Vikramajet.		A. D.		*Rupees.*
1874	or	1817-18	.....	248872
1875	„	1818-19	.....	245161
1876	„	1819-20	.....	266404
1877	„	1820-21	.....	268104
1878	„	1821-22	.....	225262
1879	„	1822-23	.....	195578
1880	„	1823-24	.....	155431

The proceeds of the wanta part of Wuootha (401 Rupees) were first added to the Talooka Revenue as shown above in 1878; the wanta of Chundesur (921 Rupees) and the village of Guroreea (626 Rupees) were added also in 1880. The falling off of the Revenue during the two last years has been principally occasioned by the very bad nature of the seasons, the monsoon rain, on which nearly all the villages are dependent, having been extremely scanty.

Extra Charges borne by the Talookdars.

62. In addition to the above jumabundee, the Talookdars bear an extra charge for the payment of the dues to the Desaees, Muzmoodars, &c. &c., amounting in 1880 to a gross sum of 4,715½ Rupees; and as the items seldom vary, it may be taken at about this amount for every year.

Result of an attempt to ascertain the extent of the Wanta

63. The wanta estates of the Guraseeas have been already alluded to, as supposed to have been parted off about the time of the Moosulman conquest, when the first division between the Khalsa and Talooka took place. An attempt was made during the progress of the Survey to ascertain the extent of the wanta in each village, and the limits, as pointed out, were laid down upon the plans; the result is as follows:—

	Beegas.	w.	ww.		Acres.	r.	p.
Aggregate amount of wanta in the Talooka villages	139986	17	4	or	82269	2	14
Disputed between the wanta and tulput.....	1457	19	16	„	856	3	16
Total claimed as wanta..	141444	17	0		83126	1	30

The wanta would thus appear to embrace nearly a fifth part of the total Talooka area: but this cannot be taken as a fair or true statement; and were the individual claims strictly examined, it would without doubt be found greatly exaggerated. The Talookdar is often himself the owner of the wanta, and in such cases it is but natural to suppose he will show the limits of his private estate as far as he conceives will best suit his own interests; and the very small quantity of land found to be disputed between the wanta and the tulput may be cited as a convincing proof that no measurement, without a correspondent scrutiny into tenures of this nature, can be relied on. Excepting in a few instances, where the interest of both the Patels and the Talookdar was at variance with that of the wanta possessor, no altercation or disagreement regarding their respective limits took place—a circumstance unprecedented in the case of village boundaries, and which could hardly occur between two parties, each anxious to preserve his own proper rights.

Not satisfactory, and evidently exaggerated.

64. The alienations from the tulput are not supposed to be of any great extent, but no certain information relative to them can be given. The Talookdars are in the habit of providing for their inferior relations and dependents by assigning them portions of land, termed "Jeewaee." This is a tenure, however, which on any permanent resumption of the villages could not be supported, as it is merely a private provision made by the Talookdar personally, and with which the Government has no manner of concern.

Jeewaee Lands.

65. To sum up the foregoing view of the Talooka villages, it may be observed that those in the Northern and central parts of the Purgunna present a very wide field for improvement: the extensive tracts of waste land now overrun with jungle and coarse grass are certainly equal to the support of a population at least four times as great as the number of the present inhabitants. This remarkable want of population, so apparent here, may be ascribed mainly to the long disturbed state of the country, and the constant incursions to which this quarter in particular was so exposed: now, however, that quiet and order are restored, it might be imagined that the population would rapidly increase; but such does not appear to be the case; and little material improvement is to be expected while the Talookdars remain so careless upon the subject, and take no steps, either to increase the means of the present inhabitants, or to attract fresh settlers from other places. The South-western villages, though thinly populated, probably contain almost as large a body of people as the land is able to furnish subsistence for: very little arable ground is out of cultivation; large tracts of pasturage are required for the herds of cattle, on which so much of the comfort of the people in this quarter appears to depend, and it is conceived that little sensible improvement could be wrought under any system of management. The people, in general, appear well satisfied with the conduct of the Talookdars towards them; and, excepting the subject of babtees mentioned above, few complaints are heard of oppression or ill-treatment. The personal fitness, however, of the Gurascea Talookdars themselves, for the charge entrusted to them, cannot be placed in any very favorable light. They are grossly ignorant, scarcely one of them being able to write his own name; their circumstances are much embarrassed; they have no idea of accounts, and are generally in the hands of some hard and crafty Buneea; they are universally addicted to the use of opium, which they regard as one of the necessaries of life, and they are indolent and apathetic in the extreme.

General view of the Condition of the Talooka Villages.

Area of the entire Purgunna by Todur Mul's Records, by the Tulatees, and by the Survey, compared.

66. The area of the entire Purgunna, as recorded by Todur Mul, as estimated in the Tullatees' accounts, and as found by the Survey measurement, stands as follows—the beega of the two latter is the same, the standard of that of the former is unknown, as explained in the Duskroee Report:—

	Khalsa Villages.			Talooka and Alienated Villages.	Total Area of the Purgunna.
	Cultivated and Arable.	Unproductive.	Total Area.	Total Area.	
	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.
By Todur Mul	265726	113517	379243	791666	1170909
By Tullatees' accounts...	163661	51484	215145	507186	722331
By Survey	236178	28744	264922	746603	1013398

The area of the nine alienated villages, which is not given in the Tullatees' accounts, has been added from the Survey, in order to complete the comparison.

Table of the aggregate Population and Stock of the whole Purgunna.

67. The aggregate population of the Purgunna, as ascertained by a minute census taken by the Survey, together with the cattle, ploughs, and carts, is as follows:—

	Males.	Females.	Total.
Koonbees..	7800	6154	13954
Kolees	10195	8159	18354
Rajpoots..	5878	4692	10570
Brahmuns	3796	3275	7071
Bhats and Charuns	1601	1259	2860
Buneeas..	4061	3457	7518
Wuswaeeya, &c.	4794	4011	8805
Dhers, Bungees, &c.	4419	3475	7894
Various other castes	4431	3298	7729
Total Hindoos....	46975	37780	84755
Moosulmans	6227	5887	12114
	53202	43667	
Slaves			1324
Total population..			98193
Houses; tiled 31851; thatched 5241			37092
Ploughs			12272
Carts			3932
Oxen			30023
Cows			17565
Buffaloes			16927
Sheep and Goats..			3425
Horses			743

Character of the People.

68. The habits and customs of the people of this Purgunna are similar in every respect to those of other parts of the Province, which have been too often and too minutely described to need repetition here. Their moral qualities are of that even order where neither prominent virtues nor prominent vices are observable. They are habitually litigious, but violent quarrels and dissensions among the members of a village community are rare; intoxication is by no means common, though the pernicious use of opium is more prevalent than could be wished, as is marked in the deadened

faculties and listless demeanour of the Rajpoots, and too frequently of Pateedars, Patels, and heads of villages. A habit of prevarication pervades all classes; but, perhaps, this has been induced rather by the oppressive conduct of former rulers (the remembrance of whose exactions makes them suspicious even of present kindness) than by any natural disposition to deceit, and the late practice of farming villages to speculators and contractors has not tended to decrease it. In some places there are schools, where a few of the children are taught to read, write, and cast accounts; but, with the exception of the Buneeas and Brahmuns, the whole body of the people may be said to be totally ignorant of letters or figures. They make their money calculations by means of small stones; and bits of earth and tiles, which they pass from side to side as the calculation proceeds; but it is obvious how much they must be in the power of their creditors, whose books they have no written accounts to check.

69. The Rajpoots are a remakably tall, well made race of men; their external appearance is imposing, and its effect is much increased by the lofty and ample turban which they wear. They are high spirited, and fully conscious of the chivalrous character their ancestors sustained, and their former consequence in the country. But at the present day they are greatly degenerated, immoderately addicted to the use of opuim, ignorant, and indolent; as agriculturists they are idle, careless, and unthrifty, and they are fast losing that courage and spirit which might characterize them as soldiers. They are generally good riders, and many of the Thakors and principal men breed horses. The Kolees are chiefly of the Tulubda class, and quiet and tractable cultivators. Among the Pateedars, perhaps, there is a somewhat greater turn for extravagance than in the respectable villages of the Broach Purgunna, although the people here are not in the enjoyment of equal ease and prosperity: this may spring from the improvident example of the Rajpoots, and the showy disposition and habit of display exhibited by the Moosulmans in former times. Among the other classes there is no peculiarity worthy of notice.

Town of Dholka:

70. The kusba of Dholka is a large open town, containing many substantial dwellings: its length is $1\frac{1}{2}$ mile from North to South, and breadth $\frac{3}{4}$ of a mile from East to West. The only remarkable buildings are the two fine stone tanks on its Western side, and the ruin of an ancient and very large brick mosque called the "Khan-ka-Musjid," on the bank of the smallest. Both these tanks retain their water throughout the entire year, and in the centre of the largest there was formerly a small bungalow, connected by a bridge to the side. According to the census taken by the Survey, the number of houses amounts to 7,972, and the population to 21,543 souls. Kusbatee Moosulmans occupy 3,128 houses, Buneeas 1,104, Brahmuns 944, Koonbees and Kacheeas together (these being the principal cultivators) 924, and Artizans 731 houses. Dholka is evidently in a declining state: it suffered much from the destructive famines of 1847 and 1869 Vikramajet (A. D. 1791 and 1813), and though it is now relieved from the inroads of predatory bodies, which, during the time of the Mahrattas, were so frequent, yet it shows no symptoms of returning prosperity. There are two considerable Sowkars, one a Buneea, and the other a Seemalee Brahmun, who write hoondees to the amount of 50,000 Rupees, as far as Bombay, Surat, Oojein, Rutlam, and Bhownuggur. They lend money within the town of Dholka, in sums not exceeding 5,000 Rupees, at 9 per cent. interest, on condition of immediate repayment when required. Six other merchants of the same castes write hoondees of 5,000 Rupees, as

Its Population;

Capital of its Merchants;

far as Ahmedabad, Cambay, and Bhownuggur; and lend money at 9 and 12 per cent. Among the Brahmuns there are 20 wealthy men, possessing from 5,000 to 1,00,000 Rupees, who support themselves by lending sums of from 500 to 2,000 Rupees to the Buneea and Momna traders: they also lend smaller sums to the lower and the labouring classes, on condition of receiving for every Rupee advanced $1\frac{1}{4}$ in return, and, the loan being repaid by monthly instalments within the twelvemonth, the profit exceeds 25 per cent. About 200 of the poorer Brahmuns earn a livelihood by borrowing from the more wealthy at 9 per cent., and lending out small sums not exceeding 20 Rupees at the last mentioned high rate of interest, thereby gaining a profit of about 14 per cent. All the monied men in Dholka have been in the habit of farming villages in the Purgunna, and acting as Karbarees to Kusbatees and Guraseeas.

Trade;

71. About 25 Buneeas trade in cloth to the amount of 25,000 Rupees, and nearly 400 Buneeas and Brahmuns find employment as Mehtas to the Kusbatees and merchants. There are 200 Buneeas occupied in retailing grain in the kusba, possessing little or no capital, but receiving the grain on an engagement to settle with the Ryut at the lapse of 15 or 30 days, and in the mean time they accomplish its sale: these dealings in the year are to the extent of from 1,000 to 50,000 Rupees. The manufactures of Dholka are confined to cotton cloths, and afford employment to about 100 families of the Khutree caste, and 300 of the Momna (converted Moosulmans) and Rahadunpooreea Kusbatees. One half of these cloths are exported to Mocha and the Persian Gulf, and the rest are sold in the kusba. The export trade of cloths for the Mocha market, which in former times was carried on to such extent, has been gradually declining during the last forty years, and has become quite insignificant since the period of the last famine of Sumwut 1869, or A. D. 1813.

And Manufactures.

Table contrasting the Dholka with other Surveyed Purgunnas.

72. The following table exhibits the nature and general condition of the Dholka Purgunna, contrasted with the other Purgunnas which have as yet been completed by the Revenue Survey now in progress :—

Purgunnas.	1	2	3	4	5	6	7						8		
	Number of Villages.	Total Square Miles.	Proportion Unproductive.	Proportion of the Productive Land Alienated.	Net Revenue.	Percentage of Village Charges on Gross Revenue. (f)	Resources to one Mile.						Net Revenue per Acre, calculated on the Net Revenue shown in Column 5.		
							Houses.	Souls.	Black Cattle.	Ploughs.	Carts.	Revenue.	On Total Cultivated Land.	On Total Cultivation and Arable Waste.	On Total Area.
		dcls.	Per cent. dcls.	Per cent. dcls.	*Rupees.*	Per cent. dcls.						*Rupees.*	*Rs. q. r.*	*Rs. q. r.*	*Rs. q. r.*
Dholka, Khalsa..	66	243·27	10·84	44·50	202144	9·88	87	247	138	24	8	830¾	2 2 85	1 1 82	1 1 19
„ Talooka	107	652·74	....	....	225989	....	23	56	45	9¼	3	346	....	....	0 2 16
„ Alienated	9	32·83	....	....	....	....	..	....	....	....	..	....	....	....	....
„ Purgunna.	182	(a)930·57	....	....	428133	....	40	106	69	13	4	460	....	....	0 2 87
Duskroee (b)	146	342·54	15·26	33.84	295666	8·96	63	207	156	22½	7¼	863	3 0 48	1 2 36	1 1 39
Broach (c)	162	429·77	18·06	21·49	1153817	9·80	53	228	....	....	..	2684¾	5 1 92	5 0 46	4 0 77
Unklesur	50	134·90	31·87	26·45	200546	14·01	45	191	130	20½	..	1486½	4 2 56	3 1 72	2 1 29
Hansot	51	142·25	48·01	34·83	173745	16·87	27	119	103	18¼	..	1221½	4 0 26	3 2 68	1 3 63
Jumboosur	82	337·15	38·65	32·66	334386	11·30	37	138	73	12½	7	991¾	2 3 76	2 2 10	1 2 19
Amod	42	220·14	49·48	40·29	80354	24·97	18½	74	48	8	4	365	1 2 40	1 0 91	0 2 28
Dehej	10	55·46	54·98	35·95	14550	27·20	18	70	41	8	4	262¼	1 0 41	0 3 64	0 1 63
Oolpar (d)	143	322·83	44·77	24·42	483861	18·90	32	147	91	15	8	1498¾	5 2 50	4 1 37	2 1 36
Parchol (e)	35	110·54	62·62	11·89	149033	10·10	43	180	97	15	10	1348¼	10 0 10	5 2 54	2 0 42

(Broach Collectorate: Broach, Unklesur, Hansot, Jumboosur, Amod, Dehej. Surat Collectorate: Oolpar, Parchol.)

(*a*) Including 1·73 square miles, or 1,100 acres of land, involved in boundary disputes between the Khalsa and Talooka, remaining unadjusted.

(*b*) Exclusive of the ground occupied by the city of Ahmedabad, but inclusive of all without the walls, and also of the 11 alienated villages.

(*c*) Exclusive of the fort of Broach, but inclusive of its suburbs, which are distinct villages. From this, and all the other Purgunnas of the Broach Collectorate, the alienated villages are excluded.

(*d*) Inclusive of 4 alienated villages.

(*e*) Exclusive of 3 villages held by the Sucheen Nuwab.

(*f*) The village charges in the Duskroee and Dholka Purgunnas include the chora khurch, or contingent expenses of the village, the Muzmoodars' and Desaees' fees, Guras' payments, dhurmada, or charitable donations for the support of temples and religious persons, the Tullatees' pay, and occasionally an enam, or honorary present, to the Patels ; but the various items included under this head differ much in the several Purgunnas. The per-centage is calculated on the total amount of these charges, added to the net Revenue of the preceding column, thereby making up the gross sum actually collected.

N. B.—The proportion alienated shown in column 4 is calculated as follows :—In the Duskroee and Dholka Purgunnas on the measured amount, according to possession ; in the Broach, Unklesur, and Hansot on the amount settled by the Revenue Commission ; and in all the other Purgunnas on the amount stated in the Tullatees' estimated accounts and Muzmoodars' records. The net Revenue in column 5, of the Dholka, Duskroee, Oolpar, and Parchol Purgunnas, is taken from the mean of 6 years ; for the Purgunnas of the Broach Collectorate it is taken for the single year 1817-18, as given in Lieutenant Colonel Williams' Report.

Documents furnished by the Survey.

73. The Survey of the Khalsa portion of the Dholka Purgunna has been conducted on the same principles as that of the Duskroee: a topographical plan has been formed of each village, and every field minutely measured and registered. The Survey of the Talooka portion has been confined to the topographical plan of each village, without any measurement of fields, or further inquiry into the state of the lands, than the personal inspection of the Officers affords. The finished documents are comprised in the following list:—

For the Khalsa Villages alone.

A kurda, or detailed register of the lands, field by field, of each of the villages, transcribed from the original chopra or field book—in Guzeratee only.

Abstract statements, for each of the villages, of the lands, produce, population and stock; together with the dara or system and rate of assessment, and the receipts and disbursements of Revenue for a given year—in English and in Guzeratee.

General statements, in English and in Guzeratee, formed from the above, comprising—

No. 1.—The amount of the several descriptions of land in each village, classed under the different varieties of soil, according to measurement.

No. 2.—The different descriptions of produce forming the first crop, under which the lands were found at the period of the Survey.

No. 3.—The second and third crops; the wells in use and decayed, with an estimate for repair of the latter; and the trees.

No. 4.—The amount of the several descriptions of alienated land, as estimated in the Tullatees' accounts for 1822-23 A. D.; together with the gross amount of alienations by measurement, contrasted with the area and the Revenue.

No. 5.—The assessments, disbursements, and total estimated proceeds, according to the Tullatees' accounts for 1822-23 A. D.

No. 6.—The houses and population, according to castes and occupations; cattle; ploughs; carts, &c.

No. 1 *Supplemental.*—The amount of alienated land held by each class of people, according to possession at the period of Survey. Annexed are average rates in Rupees and English money.

No. 2 *Supplemental.*—Corresponding statement to No. 1 in British statute acres.

No. 3 *Supplemental.*—Comparison of the Tullatees' accounts of the lands with the Survey measurements, and the ancient rukbas of Todur Mul.

Remarks on the general condition, tillage, assessment, and resources of each village, with translations of the daras—in English only.

For the Talooka Villages alone.

One general statement of the area, the houses, the population by castes and occupations, the cattle, ploughs, and carts of the Talooka, Enam and Kheratee villages—in English and in Guzeratee.

Remarks on the general condition of each village, together with the dara, or system and rate by which the Talookdar collects from the Ryuts—in English only.

For the entire Purgunna.

A volume containing authenticated copies of the razeenamas taken during the progress of the Survey for the adjustment of boundary disputes—in Guzeratee only.

Topographical plans of the whole of the villages, Khalsa, Talooka, and Alienated, on scales of 2½* and 5 inches to 1 mile, chiefly surveyed, and the copies from the European originals drawn by Native Surveyors—in English only.

A reduced plan of the whole Purgunna, formed from the above large plans, on a scale of 1¼ inch to 1 mile; exhibiting the situation of the villages, with their boundaries, and a complete delineation of the face of the country—in English and in Guzeratee; the latter being a copy of the European original drawn by Native Surveyors, and the names written in the Balboodh character.

A general report on the whole Purgunna—in English only.

Boundary Disputes adjusted.

74. The boundary disputes in the Dholka Purgunna were found to be excessively numerous, and many of them were of a very intricate and important nature: 155 have been adjusted on the razeenama of the parties, and 24 remain. The petty disagreements, which were adjusted without the formality of a razeenama, or any of the usual ceremonies, are not included; neither is any notice taken of the claims within the Nul, which cannot at present be ascertained or measured.

Results of the Survey.

75. The result of the present measurement gives the arable land of the Khalsa villages 72,518 beegas in excess of the Tullatees' estimates: the unproductive is short of them by 22,740 beegas, and the total area consequently is greater by 49,778 beegas.

Time occupied, and Officers employed.

76. The Survey of the Dholka Purgunna was commenced in January 1823, and the field work finished in May 1824. The Officers who assisted in its execution were Lieutenant Melvill, of the 7th Regiment, and Lieutenant Johnson, of the 17th Regiment Native Infantry.

J. CRUIKSHANK, Captain,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 31*st December* 1825.

* The 2½ inch scale has been used in the poorer parts of the country, and found to answer every required purpose.

THROUGHOUT the whole of the Ahmedabad Collectorate, and the Eastern Zilla North of the Muhee, lands are measured and accounts kept in Beegas, Wusas, and Wiswusas: (20) twenty Wiswusas form (1) one Wusa, and (20) twenty Wusas (1) one Beega; the Beega, like the English acre, being entirely a square measure. The Guntha or rod, by which land measurements are made, is computed at (5) five Haths; and (20) twenty such Gunthas, or (100) one hundred Haths, are the length of one side of a Beega.

Prior to the Survey no common standard for the length of the Guntha or of the Hath existed; but after a careful and thorough investigation and inquiry by the late Lieutenant Colonel Williams, the length of the Guntha was determined and fixed, upon the average of rods received from ten different Purgunnas, at (96) ninety-six inches, or (8) eight feet exactly, and the length of the Hath at ($19\frac{1}{5}$) nineteen and one-fifth inches.

The Beega, therefore, now considered as the Government Standard Beega for the Zillas of Ahmedabad and Kaira, contains (25,600) twenty-five thousand and six hundred square feet, the Wusa (1,280) twelve hundred and eighty square feet, and the Wiswusa (64) sixty-four square feet. As an English statute acre contains (43,560) forty-three thousand five hundred and sixty square feet, it follows that (1) one such Standard Beega is equal to (·5877) five thousand eight hundred and seventy-seven decimal parts of an acre; or that (1) one acre is equal to (beegas 1 14w. 0·62ww.) one Beega, fourteen Wusa, and sixty-two decimal parts of a Wiswusa.

The Government and the alienated lands are measured by the same common standard.

TABLE OF LONG MEASURE.

Inches.		Feet.		Hath.				
19·2 dcls.	=	1·6 dcls.	=	1				
96	=	8	=	5	=	Guntha. 1		
1,920	=	160	=	100	=	20	=	Side of a Beega. 1

TABLE OF SQUARE MEASURE.

Square Inches.		Square Feet.		Square Yards.		Wiswusa.					
9,216	=	64	=	7·11 dcls.	=	1					
184,320	=	1,280	=	142·22 dcls.	=	20	=	Wusa. 1			
3,686,400	=	25,600	=	2,844·44 dcls.	=	400	=	20	=	Beega. 1	
6,272,640	=	43,560	=	4,840	=	680·62 dcls.	=	34·03 dcls.	=	1·70 dcls.	= Acre. 1

REPORT

ON THE

PORTION OF THE DHOLKA PURGUNNA SITUATED IN THE KAIRA COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Situation and Boundaries.

THAT portion of the Dholka Purgunna which is attached to the Kaira Zilla comprises 16 villages, the greater part of which are situated in a compact body to the Eastward of the Saburmuttee and Kharee rivers, and on both sides of the Watruk: detached from the rest are Wudala, at a short distance to the East; Hureeala, immediately opposite the town of Kaira; and Beeruj and Kunera, situated upon the Kharee river, higher up. The Purgunna in general is bounded on the West by the Dholka villages of the Ahmedabad Zilla, on the North by the Duskroee Purgunna, and on the East and South by the Matur and Cambay Purgunnas. Its superficial contents are as below:—

Superficial Contents.

	dcls.		
Square British miles.....	63·38		
		r.	p.
British statute acres.....	40565	1	34
		w.	ww.
Standard beegas	69024	13	13

Talooka Villages.

Of the 16 villages 7 are Talooka, or held on hereditary leases—3 by Guraseeas, and 4 by Kusbatees of Dholka. At the time of the Survey, these were assessed and treated in a similar manner to other Government villages, on which account they are not treated separately in the Survey documents; but the Tullatees have subsequently been withdrawn, and the villages placed on the same footing as the Talooka villages West of the Saburmuttee.

Face of the Country.

Kharee and Watruk Rivers.

2. The tract of country occupied by these villages is low, and much intersected with nullas, artificial cuts, and water-courses; and it is subject in parts to be occasionally flooded. The Kharee river takes it course along the Northern boundary of Naeeka, and through the midst of the lands of Kulolee; and on the North-west of Ruroo unites itself with the Saburmuttee. Its banks are low, and when surveyed the stream was deep, and much land was irrigated from it by means of bunds, constructed in a similar manner to those in the Ahmedabad Duskroee Purgunna. The Watruk river is also

Bund to turn the course of the Watruk, at Ruroo.

of use in irrigation, the water being raised by means of dekoorees, constructed upon the banks, which are of very inconsiderable height. At the village of Ruroo this river some years ago burst its way through a narrow neck of land, formed by the bending back of the original channel, which was thus left entirely dry: this change was naturally injurious to the villages situated upon the bank, as the course of the river became shorter, and less extensive use could be made of its water. A bund, therefore, to force the stream back again into its old bed, was deemed urgently requisite; and on the village being allowed to revert to its former proprietor, Bapoo Meean, a lease was given to him on such terms as afforded ample means of accomplishing the work, and he at the same time undertook to do so. The engagement has been fulfilled, by the erection of a kucha or mud dam, which is said to have cost 3,000 Rupees. The Watruk and the Saburmuttee unite at Wuootha, a short distance lower down.

Cultivated and Waste Land.

3. The sum total of the cultivated, arable, and and unproductive lands of the Purgunna, according to the present Survey, is exhibited in the following table:—

	Beegas.	w.	ww.	Acres.	r.	p.
Cultivation	39506	11	18	23217	3	13
Purtur, or formerly cultivated	14035	2	9	8248	1	19
Arable waste, not before cultivated ..	5110	13	2	3003	2	1
Total arable land..	58652	7	9	34469	2	34
Unproductive land	10372	6	4	6095	3	0
Total area.	69024	13	13	40565	1	34

The largest area embraced by any single village is that of Ruroo, which measures by the Survey 11,008 beegas, or 6,469 acres. The smallest village is Wudala, measuring 986 beegas, or 579 acres. But the largest Revenue is paid by Naeeka, and next to it by Ruroo: the smallest Revenue is paid by Chanduna, but no village pays less than 1,000 Rupees. The largest population is contained in Ruroo (2,628 souls), and the smallest in Koojera (70 souls).

Soil.

4. The soil in this Purgunna is classed under two denominations only, kaurda and goraroo: about 40 per cent. of the arable land falls under the former, and 60 per cent. under the latter.

Crops.

The various species of crop grown, and the extent to which the cultivation of each was carried at the period of the Survey, is exhibited below:—

	Beegas.	w.	ww.	Acres.	r.	p.
Bajeree, jowar, and pulse crops.. ..	10440	9	15	6135	3	11
Kodra, baota, and other poor grains..	2634	18	18	1548	2	7
Dangur and sathee..	7008	8	6	4118	3	9
Barley and wheat	13119	8	18	7710	0	37
Garden produce	157	13	14	92	2	27
Kusoombee (a dye)	947	13	11	556	3	31
Sugar-cane	215	2	12	126	1	29
Tobacco	210	14	16	123	3	16
Cotton	187	15	15	110	1	18
Opium (the poppy flower)	0	17	15	0	2	3
Dewula, chuna, &c.	1210	19	11	711	2	29
Fallow land	3372	8	7	1981	3	32
Total cultivated land.. ..	39506	11	18	23217	3	13
After crops (included in the above total).	3189	5	13	1874	1	12

5. The proportionate quantity of land under wet and dry tillage appears to be as follows :— Wet and dry Tillage.

	Cultivation.			Purtur.		
	Beegas. w. ww.	Acres. r. p.		Beegas. w. ww.	Acres. r. p.	
Wet	8860 18 7	5207 2 2		887 7 0	521 1 38	
Dry	30645 13 11	18010 1 10		13147 15 9	7726 3 21	
Total	39506 11 18	23217 3 13		14035 2 9	8248 1 19	

It appears from the above, that about 22 per cent. of the whole amount of cultivated land is irrigated either from rivers, tanks, or wells. The total number of wells in use is 255; of which 112 are the property of Government, and 143 of private individuals. The ruined wells are in number 69 (18 Government and 51 alienated), the estimated expense for the repair of which is 9,175 Rupees.

6. The Tullatees' numoona statements show about 66 per cent. of the arable land comprised within the limits of the Purgunna as alienated from the State. One village, Meheluj, is entirely alienated, with the exception of a few beegas of bhata land, and even these were, upon their first formation by a change in the channel of the river, also disposed of by the Patels, but were afterwards recovered to Government by a suit in the Adalut. The following is an account of the alienations of the Purgunna as they appear in Tullatees' accounts :— Alienations.

	Nukra, or Free.		Paying Sulamee and Suwadeea.		Total.	
	Beegas.	w.	Beegas.	w.	Beegas.	w.
Guraneea.....	1047	8	762	15	1810	3
Vechaneea.....	3814	2	9752	8	13566	10
Pusaeeta.....	2409	7	520	5	2929	12
Hureea & Runwuteeya.	113	0	19	0	132	0
Chakreea.....	1890	$12\frac{1}{2}$	2433	0	4323	$12\frac{1}{2}$
Wanta.....	4767	$3\frac{1}{2}$	5719	19	10487	$2\frac{1}{2}$
Total.....	14041	13	19207	7	33249	0
Total alienated land by estimate..					33249	0
Total Government land „					16487	$19\frac{1}{2}$
Unproductive land „					14721	7
Total area of Purgunna..					64458	7

From the same documents it appears that the sum paid on account of alienated lands, under the head of sulameeas, amounts to 12,765 Rupees, or Rs. 0-1-53 per beega, calculated upon the total of the alienations, and Rs. 0-2-65 per beega calculated on those alone which are subject to any kind of taxation.

7. The amount of Revenue paid by this part of the Dholka Purgunna to Government since the year 1875 Sumwut (A. D. 1818-19), the period when it was first detached from the rest, has been as follows :— Net Revenue for six successive years.

Sumwut.		A. D.	*Rupees.*
1875	or	1818-19	61288
1876	„	1819-20	64055
1877	„	1820-21	62382
1878	„	1821-22	64772
1879	„	1822-23	65464
1880	„	1823-24	69672

Average Revenue per Beega and Acre.

The average net Land Revenue, therefore, for these six years, is Rupees 64,605; and the bearing of this Revenue upon the land is shown in the following table—the Rupee is calculated as equal to 2*s.* 3*d.* English money :—

	On Total Cultivated Land.			On Total Arable Land.			On Total Area.		
	Rs.	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*
Average rate per beega	1	2	16	1	0	40	0	3	74
„ „ per acre	3	0	16	1	3	49	1	2	37
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Average rate per acre ...	0	6	9	0	4	$1\frac{3}{4}$	0	3	$6\frac{1}{2}$

The village charges during the above period have averaged about $10\frac{1}{2}$ per cent. of the gross Government Revenue.

Constitution and Assessment of the Villages.

8. The constitution of the villages of this Purgunna is for the most part senja ; one only (Beeruj) being nurwa, and two others (Koshel and Turaj) khatabundee. The assessment is made partly by butaee, or in kind, and partly by beegotee, or a money payment per beega. The former system prevails to a somewhat greater extent than the latter, as is apparent from the following :—

	Beegas.	w.
Assessed by butaee, according to the Tullatees' accounts ..	8338	$11\frac{1}{2}$
Assessed by beegotee	6862	$2\frac{3}{4}$
Assessed as nurwa and khatabundee	1287	$5\frac{1}{4}$

The usual rate of payment in kind is ($\frac{1}{2}$) one-half share of the khurreef produce, whether rice or not, and ($\frac{1}{3}$) one-third of rubbee produce; but there are everywhere numerous extra cesses, which, as in the Ahmedabad Dholka villages, materially alter the relative shares of Government and the Ryut. The beegotee rates vary from 3 to 6 Rupees per beega of irrigated, and 1 to $3\frac{1}{2}$ Rupees per beega of dry land. Maleeat produce, such as sugar-cane, chilies, &c. pays from 15 to 22 Rupees per beega. Veeras upon castes and occupations, and sometimes upon ploughs, are very generally imposed.

Population.

9. The Purgunna contains the following population, according to the census made during the Survey :—

	Males.	Females.	Total.
Koonbees	1675	1481	3156
Rajpoots	880	724	1604
Kolees	1287	996	2283
Brahmuns	703	588	1291
Bhats, and Tragalas	248	204	452
Buneeas	326	268	594
Cheepa and Baosar	39	37	76
Kacheea and Kureea	157	123	280
Wuswaeeya	681	581	1262
Dhers, Guroras, &c	578	485	1063
Various other castes	261	176	437
Total Hindoos	6834	5663	12497
Moosulmans	530	459	989
Total	7364	6122	13486
Slaves			175
Total			13661

The agricultural stock and the general resources of the Purgunna are shown below :— General Resources.

Square Miles.	Villages.	Houses.	Souls.	Horned Cattle.	Horses.	Sheep & Goats.	Ploughs.	Carts.	Net Revenue —the Mean of 6 Years.
dcls.									*Rupees.*
63·39	16	4001	13661	8411	76	4600	1870	548	64605

The proportion of the above to each square mile and each acre is as follows:— Proportional Resources.

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue.
						Rs. q. r.
Per Mile...	63	215	132	29½	8	1019 1 59
Per Acre....	$\frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{5}$	$\frac{1}{20}$	$\frac{1}{80}$	1 2 37

The males exceed the females in the proportion of 1·20 to 1, or about 100 to 83. There are rather more than $3\frac{1}{4}$ souls to each house; each plough cultivates upon an average 21 beegas or 12 acres of ground, and the Revenue upon each plough averages Rs. 34-2-19, or £3 17*s*. $8\frac{3}{4}$*d*. sterling.

10. The result of the Survey and measurement which has now been made of the Dholka Purgunna proves the arable land to be of greater extent than before estimated in the Tullatees' accounts by 8,268 beegas, while at the same time the land properly classed as unproductive proves to be less by 4,349 beegas, so that the total area by the Survey exceeds the former estimate by only 3,919 beegas. The Survey was conducted under the superintendence of Captain Ovans, 1st European Regiment, assisted by Lieutenant Keys, of the 6th Regiment Native Infantry, during the years 1820 and 1821 A. D., corresponding with Sumwut 1876 and 1877. Result of the Survey.

11. There are 3 villages (Kuneej, Sadra, and Mulatuj,) which at the time of the Survey were not attached to any particular Purgunna, and which have been annexed to the Survey documents of the Dholka Purgunna. Detailed information relative to them will be found in the General Statements and the Volume of Remarks; and it, therefore, is not considered necessary to notice them here at any length. The total area of the three villages proves by measurement to be 11·77 square miles, equal to acres 7,538 0r. 13p., or beegas 12826 10w. 8ww.: of this area acres 1,704 2r. 4p., or beegas 2,900 7w. 5ww. are unproductive; and of the remaining arable land, in all amounting to acres 5,833 2r. 8p., or beegas 9,926 3w. 3ww., the proportion of acres 3,998 2r. 13p., or beegas 6,803 16w. 18ww., was found to be actually under tillage. The total number of houses, according to the Survey census, is 764, which are occupied by a population of 2,758 souls; the number of horned cattle was found to be 2,557, of ploughs $366\frac{1}{2}$, and of carts 119. The net Revenue for a single year, according to the Tullatees' accounts, and as shown in the General Statements, is 10,107 Rupees, and the village and other charges are 1,506 Rupees, making a gross Revenue of 11,613 Rupees. The net Revenue of the three villages together shows an average of Rs. 1-1-94 per beega (or Rs. 2-2-11 per acre) of cultivated land, and of Rs. 1-0-7 per beega (or Rs. 1-2-92 per acre) of arable land. Kuneej stands upon the right bank of the Meswa river, and was once a place of considerable size and consequence. Three Villages, not attached to any particular Purgunna, are annexed to the Survey Documents of the Dholka Purgunna.

J. CRUIKSHANK,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 15th January 1827.

REPORT

ON THE

MEHEMOODABAD PURGUNNA, IN THE KAIRA COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Situation and Boundary.

THE small Purgunna of Mehemoodabad, consisting of only 11 villages, is situated to the North of the town of Kaira, the Zilla Station. It is bounded on the North-east by the villages of the Duskroee Purgunna, and the separate kusba of Kuneej; and on the North-west, West, and South by those of the Muhoonda and Matur Purgunnas.

Superficial Contents.

2. The superficial contents of the whole 11 villages, according to the measurements of the Revenue Survey, are shown below:—

	dcls.	
Square British miles.....	33·56	
		r. p.
British statute acres.....	21479	0 26
		w. ww.
Beegas of the standard North of the Muhee....	36548	2 16

Form.

3. The form of this Purgunna is very irregular, but all the villages join upon each other, with the exception of Kesra, which is divided from Khatrej and Wunsol by the intervening lands of Wuntwalee, belonging to the Muhoonda Purgunna. It is watered by two rivers, viz. the Watruk, which flows between the villages of Pahar and Sunsolee on the North bank, and the kusba, Khatrej, and Veerol on the South; and the Meswa, which forms the Northern boundary of Nenpoor, and the North-western boundary of the Purgunna.

Productive and unproductive Area.

4. The area of the Purgunna, as given above, amounts to beegas 36,548 2w. 16ww., or acres 21,479 0r. 26p.: of this beegas 6,675 11w. 7ww., or acres 3,923 0r. 31p. is lost in ravines, beds of rivers, water-courses, roads, sites of villages, &c., leaving beegas 29,872 11w. 9ww., or acres 17,555 3r. 34p. as the arable or productive area. The village of smallest size is Pahar, its area being beegas 1,019 14w. 13ww., or acres 599 1r. 6p.: that of largest size is the kusba, measuring beegas 5,604 2w. 12ww., or acres 3,293 2r. 3p. These two villages also pay respectively the smallest and the largest Revenue; that of the former being 601 Rupees, and of the latter 8,623 Rupees. Next to the kusba, the largest sum is paid by Khatrej, viz. 5,126 Rupees: two other villages pay upwards of 4,000 Rupees; three pay

Comparative size and Revenue of the Villages.

between 2 and 4,000; and none, with the exception of Pahar, pays less than 1,900 Rupees. The whole of the villages pay Revenue direct to Government, as none of them has hitherto been alienated from the state.

Face of the Country.

5. The face of the country is very level, and not diversified by any hill or rising ground. In particular parts, the fields are enclosed with hedges, and an abundance of fine fruit trees of the mango, muhora, and raen species; but the general character of the country is open and clear. The two rivers, the Meswa and the Watruk, run nearly parallel to each other in a South-westerly direction: they are both shallow streams flowing over sandy beds; their banks are alike low, not exceeding 20 feet in height; and the distance from bank to bank of each may be about 50 yards. They unite a few miles lower down, near the village of Sumadra, and ultimately join the Saburmuttee at Wuootha in the Dholka Purgunna.

Meswa and Watruk Rivers.

Soil.

6. The soil throughout the villages of the Mehemoodabad Purgunna is classed under two denominations only, viz. the goraroo, or land of a light colour and sandy properties; and the kaurda, or land of a black or partially black nature, such as is fit for the culture of rice. The former kind of soil predominates in a very large proportion, as of the total arable area of the Purgunna, beegas 2,540 0w. 0ww., or acres 1,492 3r. 13p. only fall under the latter description.

Productions.

7. The productions of this Purgunna consist of bajeree, jowar, kuthol or pulse, rice, boota, kodra, and other coarse grains; tobacco, kusombee, or bastard saffron, and cotton. The rubbee or after crop, raised by artificial irrigation, consists almost entirely of barley, with a small quantity of wheat.

Bajeree with kuthol is the staple crop, 12,171 beegas being sown with it; 2,844 beegas only appear under jowar, and 712 beegas under rice and sathee. The kaurda lands, or those fit for the culture of rice, are scattered throughout the whole extent of the Purgunna, and every village has more or less of them. Upwards of 1,800 beegas of this valuable description of land are in a waste and neglected state; and encouragement is much required to induce each village to gradually break up and cultivate such parts as lie within its boundary; for this species of cultivation is attended with heavy expense in excavating and forming beds, and digging wells or water-courses.

Extent of waste Land fit for the culture of Rice.

Grass Land reserved for the Cavalry.

A portion of these 1,800 beegas is occupied by beer, or grass land, reserved for the forage of the cavalry stationed at Kaira, all which was under cultivation at a late period, the names of the fields and cultivators being still preserved; for this reason it does not appear separately in the statements.

Garden Ground.

In the kusba there is some garden ground where vegetables, chillies, garlic, &c. are grown; a part of which belongs to Khatrej, although quite detached from the other lands of that village.

Irrigation. Wells.

8. The irrigated crops are watered entirely from wells and tanks, no use being made of the rivers, the banks of which are said to be too loose and sandy to admit of the construction of dekoorees for raising the water to the superior level. The number of wells in a condition fit for use throughout the whole of the Purgunna is ascertained by the Survey to be 131, of which 50 are the property of Government, and 81 of private individuals: the number out of repair, and consequently useless, is 113, of which 65 are on the Government, and 48 on the alienated lands: the whole of these, it is estimated, might be repaired for less than 30,000 Rupees. No village is entirely destitute of wells fit for use, or, with one exception, of irrigated produce; Kesra has the smallest number, 2; and the kusba has the largest, 34; Nenpoor has 28, and Khatrej 22. It is supposed that the number of wells in many villages might be most advantageously increased, without

the least expense to Government, by simply allowing the Ryut to enjoy the irrigated crop raised from a new well, free of taxation, for a liberal term of years. The ordinary rent of dry land is paid as a fixed thing during the period that a gunwut, or lease, continues, so that the Ryut enjoys the profit of such increased produce only as the expenditure of his own private capital has created. When the Ryut, therefore, is willing to engage in such an undertaking, it is clear, that without any present risk or sacrifice, Government must in the end be a gainer by contracts of this description. The depth of water, and local facilities for the construction of wells vary much in these parts: in the kusba, for instance, water may be obtained in the greatest abundance at only 14 or 18 feet depth, while in Chapra the water lies so deep that the cost of a well would not be less than 500 or 600 Rupees. The tanks, which are numerous in the low kaurda grounds, deserve attention, and may often with a little repair be turned to most valuable account.

Tanks.

9. The total number of fruit trees upon the lands appears, from the Survey accounts, to be 13,745, of which 6,461 are raens, 5,145 mangoes, 1,609 muhoras, and 530 tamarinds.

Fruit Trees.

10. The Mehemoodabad Purgunna was formerly a possession of the Peshwa, and one of the five Purgunnas known by the name of the Peshwa's Punj Mahal. It devised to the Honorable Company in 1817 A. D., or Sumwut 1874, and the yearly Revenue that has since been derived from it is shown below :—

Revenue since the possession of the Honorable Company.

Sumwut.		A. D.		*Rupees.*
1875	or	1818-19	.....	33485½
1876	„	1819-20	.....	34662½
1877	„	1820-21	.....	36172¾
1878	„	1821-22	.....	33206¼
1879	„	1822-23	.....	33571
1880	„	1823-24	.....	28923

The average of village charges upon the gross Government Revenue during the above period has been about 14¼ cent.

11. In the first year of our possession, nine of the villages constituting the Purgunna were farmed out to persons otherwise unconnected with them, on leases for three years, or until the expiration of Sumwut 1877, A. D. 1821. Every one of these farmers, without exception, experienced heavy losses, although they strained the village resources to the utmost; and to this cause chiefly must be attributed the falling off of Revenue which appears in 1878, when most of the villages were retained "Kucha," that is, the collections were made immediately by Government through the agency of the Mookhee Patel and the Tullatee. Among the farmers, Otumdass Kusundass, a Patel of Wuntwalee, made himself conspicuous by his rapacity, in endeavouring to realize the extravagant sums he had contracted to pay. He held three villages, and in one of them (Sunsolee) adopted the extraordinary and unwarrantable measure of laying an equalized beegotee upon the whole of the lands, both Government and alienated, indiscriminately—thus overturning all the old established usages of the country. All these farmed villages have suffered more or less from the measure,; but under the considerate settlement made in Sumwut 1879, A. D. 1823, when several were leased on reduced terms to their own Patels, those that had suffered most kept kucha; and none, with the exception of the kusba, allowed to pass into the hands of strangers: the whole are slowly recovering. Instances, however, of over assessment can still be pointed out, where a further revision and reduction would be a judicious

Injurious effects arising from the Farming System.

Instances of over Assessment still remaining.

measure. Kutpoor and Veerol are particularly alluded to; in Nenpoor, also, a village which has always been kept kucha, the rates appear rather high.

Constitution of the Villages.

12. The villages of the Mehemoodabad Purgunna are all senja; that is, they are not divided into nurwas or shares, and each Ryut is immediately responsible to Government for the rent of the fields he cultivates. The

Method of Assessment.

system of assessment pursued is, in general, the beegotee; but rice crops, and the rubbee, or second crops, are commonly assessed in kind. The usual rates of payment upon the different descriptions of land and crop are as follows:—

Rates of Payment per Beega.

On the Government lands of goraroo soil, artificially irrigated, from 5 to 7 Rupees per beega; tobacco or vegetable produce pays from 8 to 11 Rupees per beega.

On the goraroo lands, not artificially irrigated, of the uwul or 1st sort, from 4 to 7 Rupees per beega; of the doyum or 2nd sort from 3 to 4 Rupees per beega; of the soyum or 3rd sort from 1 to 3 Rupees per beega.

On the kaurda koowetur, or irrigated rice ground, one half share of the produce in kind. In one instance (Kutpoor) this land pays 11 Rupees per beega.

On the kaurda ukaseea, or rice ground, not artificially irrigated, $3\frac{1}{2}$ and 4 Rupees per beega. When the assessment is made in kind, the Government share usually is ($\frac{1}{3}$) one-third.

On the rubbee or second crops, ($\frac{1}{4}$) one-fourth share of the produce in kind. In Nenpoor alone ($\frac{1}{3}$) one-third share is paid.

The sulamee imposed upon alienated lands varies from $\frac{1}{4}$ to $3\frac{1}{2}$ Rupees per beega, the ordinary rate being about 1 Rupee. A suwadeea is sometimes also levied, where the owner of the ground does not cultivate it himself.

Veeras or money taxes are paid to only a limited extent. In Wunsol there is a plough tax of 21 Rupees per plough, and in Kesra a like tax of 6 Rupees per plough is partially levied. Taxes upon castes and occupations occur only in two or three instances.

The fruit trees, which are not private property, generally yield one-half share of the produce to Government.

Fatachas System.

13. Two of the villages are assessed upon the fatachas system, an equal rate being levied upon the whole of the Government lands in cultivation, without reference to the class of soil. In one of these (Kachaee), however, the system is somewhat modified, the three castes of Rajpoots, Koonbees and Kolees paying different rates; and tobacco and rubbee crops bearing a distinct assessment. In the other fatachas village (Wunsol) all the established cultivators, without distinction of castes, or reference to the crop grown, pay alike $2\frac{1}{2}$ Rupees per beega, together with a tax of 21 Rupees on each plough.

Khatabundee System.

14. There is one village (Sunsolee) which may be said to come completely under the khatabundee system, or the assessment by distinct khatas or estates. In all the other villages (excepting the fatachas mentioned above) the khatabundee system is partially and in a trifling degree to be found. In general the Patels, and sometimes also all the Pateedars, hold distinct khatas; and in two instances the Patels hold a certain quantity of land, divided into bhags or shares among themselves, thus approaching somewhat to the nurwa tenure.

Estimate of the amount of Land assessed under each System.

15. The following estimate, taken from the Tullatees' numoona accounts, shows at once the extent to which each of the above systems prevails:—

	Beegas.	w.	ww.			
Government productive lands assessed under the nurwa, fatachas, or khata-bundee system, by estimate	2748	4	10			
Under the beegotee	9276	16	0			
„ „ bhag butaee..	109	1	0			
				Acres.	r.	p.
Total Government productive lands ..	12134	1	10	or 7131	0	21

Average Rate paid per Beega and Acre.

16. The subjoined exhibits the average rate paid per beega and acre in Rupees, and per acre in English money (taking the Rupee at 2*s.* 3*d.* sterling), upon the total cultivated and arable land, and the total area of the entire Purgunna. The Revenue applied to this calculation is the average of the net Revenue of 6 years, viz. from 1819 to 1824 A. D., or from 1875 to 1880 Vikramajet:—

	On total Cultivated Land, Government and Alienated.			On total Arable Land, Government and Alienated.			On the Total Area of the Purgunna.		
	Rs.	*q.*	*r.*	*Rs.*	*q.*	*r.*	*Rs.*	*q.*	*r.*
Per beega	1	2	89	1	0	46	0	3	64
Per acre	2	3	72	1	3	59	1	2	20
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Per acre	0	6	7	0	4	$2\frac{1}{2}$	0	3	$5\frac{3}{4}$

Tables to show the general condition of the Purgunna.

17. The following tables, exhibiting the aggregate and proportional resources in cattle, stock, &c., the lands in separate divisions, and the crops grown upon them, will afford a clear and condensed view of the general condition of the Purgunna at the period it was surveyed, 1821-22 A. D., or 1870 Vikramajet:—

No. 1.—*Table of Aggregate Resources.*

Square Miles.	Number of Villages.	Houses.	Souls.	Horned Cattle.	Horses.	Sheep and Goats.	Ploughs.	Carts.	Net Revenue—the Mean of 6 Years.
dcls.									*Rupees.*
33·56	11	2094	8657	3612	41	160	$687\frac{1}{2}$	216	$33336\frac{3}{4}$

No. 2.—*Table of Proportional Resources.*

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.		
						Rs.	*q.*	*r.*
Per square mile.. ..	$62\frac{1}{4}$	$257\frac{3}{4}$	$107\frac{1}{2}$	$20\frac{1}{2}$	$6\frac{3}{4}$	993	1	42
Per acre..	$\frac{1}{10}$	$\frac{2}{5}$	$\frac{1}{10}$	$\frac{1}{32}$	$\frac{1}{100}$	1	2	20

No. 3.—*Table of the Lands, Cultivated, Arable, and Unproductive, according to the Survey.*

	Beegas.	w.	ww.	Acres.	r.	p.
Cultivation	20111	9	14	11819	1	27
Purtur, or land formerly cultivated.	6698	1	1	3936	1	26
Arable waste, not formerly cultivated.	3063	0	14	1800	0	20
Total arable land.....	29872	11	9	17555	3	34
Unproductive waste	6675	11	7	3923	0	31
Total area.....	36548	2	16	21479	0	26

No. 4.—Table of the Cultivation and Purtur, under Wet and Dry Tillage, according to Measurement.

	Cultivation.						Purtur.					
	Beegas.	w.	ww.	Acres.	r.	p.	Beegas.	w.	ww.	Acres.	r.	p.
Wet.....	2162	12	17	1270	3	35	84	0	7	49	1	20
Dry.....	17948	16	17	10548	1	31	6614	0	14	3887	0	5
Total ..	20111	9	14	11819	1	27	6698	1	1	3936	1	26

No. 5.—Table of the Crops, showing the amount of Land sown with each description, according to Measurement.

	Beegas.	w.	ww.	Acres.	r.	p.
Bajeree and jowar with kuthol	15015	11	0	8824	2	10
Kodra, and other poor dry grains.....	3027	6	10	1779	0	19
Rice and sathee.....	712	14	11	418	3	18
Tobacco, irrigated.....	211	18	0	124	2	5
Kusoombee (a dye)	36	3	17	21	1	3
Cotton	16	16	7	9	3	2
Chilies, vegetables, and garden produce.	124	19	17	73	1	32
Wheat and barley, irrigated on fallow land	205	2	19	120	2	9
Wasul on fallow land.....	760	16	13	447	0	22
Total cultivation	20111	9	14	11819	1	21
After crops of wheat and barley, irrigated on land that has previously borne a khurreef crop	363	7	18	213	2	10

Alienated Lands.

18. An almost exact half of the arable land of this Purgunna has been alienated from the State, as appears from the following statement of the alienations under separate tenures, extracted from the Tullatees' accounts for the years 1819-20 and 1820-21 A. D., or 1876 and 1877 Vikramajet :—

	Nukra or Free.		Paying Sulamees and Suwadeeas.		Total.	
	Beegas.	w.	Beegas.	w.	Beegas.	w.
Vechaneea	1831	3½	3856	17	5688	0½
Guraneea	223	0	622	0	845	0
Pusaeeta	997	13	128	0	1125	13
Runwuteea and Hureeya	53	15	39	15	93	10
Chakureea	730	13	36	0	766	13
Wuzeefa	92	10	436	0	528	10
Wanta.....	1596	5	1547	10	3143	15
Total alienations.....	5524	19½	6666	2	12191	1½
Government land, according to estimate.....					12134	1½
Alienated ditto					12191	1½
Unproductive ditto					8978	15
Total area of the Purgunna					33303	18

It appears from the Tullatees' accounts of the Revenue for the above years, that the payments made by the alienated lands, under the heads of sulamee and suwadeea, amounted to 6,061 Rupees ; being an average rate of Rs. 0-3-63 per beega, if calculated on such only as were subject to partial

assessment, and of Rs. 0-1-99, if calculated on the whole indiscriminately. It will not escape observation how much the exorbitant extent of alienation, shown above, is swelled by the amount of vechaneea, much of which would, upon a scrutiny, doubtless prove resumable. The wanta forms a very considerable item, but the holders of land under this tenure have commonly a secure title.

Population.

19. The following abstract exhibits the population of the Purgunna, divided into separate castes :—

	Males.	Females.	Total.
Koonbees..	657	463	1120
Rajpoots..	74	72	146
Kolees	815	658	1473
Brahmuns	1008	836	1844
Bhats and Tragalas	204	145	349
Buneeas..	489	344	833
Kacheeas	122	80	202
Khitrees..	65	44	109
Wuswaeeya	508	361	869
Dhers, and low castes..	214	168	382
Various other castes	151	128	280
Total Hindoos....	4307	3300	7607
Moosulmans	507	444	1041
Total..	4904	3744	8648
Slaves			9
Grand Total			8657

It appears from the above, that the males exceed the females in the ratio of 100 to 76⅔, or nearly 4 to 3. The Brahmuns, who form the largest body, are almost entirely inhabitants of the kusba, and the Moosulmans also are chiefly residents in the same place. In the villages great poverty is everywhere manifest, and, unless assisted by loans of money from Government, or very light assessments, the people cannot be expected to work out much improvement. Of the 11 villages, 5 are extremely poor and wretched, and and one of them (Pahar) is without a single tiled house; the others, with the exception of the kusba, can only, at the best, be considered as of a secondary order, when compared with the well organised and well peopled establishments of other parts of the Cherotur. The kusba itself is a small town, well and compactly built, containing 1,181 houses, and a population of 4,939 souls. It is surrounded by a thick hedge, and at the principal entrances there are gateways, and the remains of a wall which appears to have anciently encompassed the place. It is named after the celebrated Mehemud Begra, who resided here for some time, and had projected the foundation of a large city. He had even made some progress in the building of the walls, when either his death or his succession to the throne of Ahmedabad caused the work to be abandoned. The ruins of the walls can still be traced for a distance of 7 miles, and they appear to have been intended to include a circuit of nearly double that distance. Near the Northern entrance there is a baoree, not often observed by strangers, of uncommon size and beauty, though now much neglected. The ruins upon the bank of the river to the Eastward of the town are supposed to be those of the palace occupied by Mehemud Begra. The town of Mehemoodabad is mentioned in the Ayen Akbery in the following terms :—" At the

General impoverished condition of the People.

Town of Mehemoodabad.

distance of 12 coss from Ahmedabad stands the city of Mahmoodabad, formed by Sultan Mahmood. It contains many good edifices, and is surrounded with a wall seven coss square, at every half coss of which is erected a pleasure house, with an enclosure, in which are deer and other game."

Date of the Survey, and its results.

20. The Survey of the Mehemoodabad Purgunna was made in the course of the year 1821 A. D., or Sumwut 1877, by Captain Ovans, 1st European Regiment, superintending, and Lieutenant Keys, of the 6th Regiment Native Infantry, Assistant. The result shows the arable land of the entire Purgunna to be 5,547 beegas in excess of the Tullatees' numoona accounts, and the unproductive waste to be less by 2,303 beegas: the total area, therefore, by the Survey, is 3,244 beegas in excess. The documents framed by the Survey are the same as those enumerated for the Nureead Purgunna.

J. CRUIKSHANK,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 15th January 1827.

REPORT

ON THE

NUREEAD PURGUNNA, AND ON THE OOMRET AND BHALUJ TUPPAS, IN THE KAIRA COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Number of Villages, and the Superficial Area comprised by the entire Purgunna.

THE Purgunna of Nureead comprises 45 villages, of which 36 are Rastee, (including Nureead and its 5 patees as a single village,) and 9 are Mehewassee, or held on the Mehewass tenure by Kolee Chiefs. These villages are for the most part situated between the town of Nureead and the Muhee river; extending in a loose and straggling manner over a considerable space of country, and much intermixed with villages of the Matur, Muhoonda, and Pitlad Purgunnas. The superficial area of the entire Purgunna is as follows:—

	Miles dcls.		
Square British miles	184·06		
	Acres	r.	p.
Statute acres	117803	1	18
	Beegas	w.	ww.
Standard beegas	200449	15	19

Mehewassee Villages.

2. The Mehewassee villages are situated along the bank of the Muhee river, among the ravines and broken ground, which afford so many strong positions. The Bheel inhabitants of these villages were once a very formidable body, plundering with general impunity the fine and rich villages in their neighbourhood; but they are now quiet and tractable, and have betaken themselves seriously to agriculture. They pay an annual Revenue or tribute to Government of 9,291¼ rupees.

Rastee Villages.

3. The Rastee villages, taken alone, embrace an area of the following dimensions:—

	Miles dcls.		
Square British miles.....	162·46		
	Acres	r.	p.
Statute acres.....	103976	3	2
	Beegas	w.	ww.
Standard beegas	176922	19	11

Their Area.

All these villages pay Revenue direct to Government, and none of them are entirely alienated, or held by private individuals. One, Dooarkapoora, is not an original village, but has been established during the last five years upon waste ground belonging to other villages, and its boundary has not yet been accurately defined.

Size of single Villages.

4. The portion of land attached to each village individually varies from 14,000 beegas (8,227 acres) to 600 beegas (352 acres). The largest village is Or, the area of which measures 14,210 beegas (8,351 acres). The kusba itself measures 12,031 beegas (7,070 acres); Sarsa 11,351 beegas (6,670 acres); Chuklasee 10,688 beegas (6,281 acres); and Sundulpoor 10,304 beegas (6,055 acres). These may be classed among the largest villages of the Province of Guzerat. The smallest of the Rastée villages is Dholee, measuring 695 beegas (408 acres); but it appears that if the total contents of the 36 villages were equally divided amongst themselves, the average size of each would be nearly 5,000 beegas (2,938 acres).

Table of the Cultivated, Waste, and Unproductive Lands.

5. The quantity of land within the limits of the Rastee villages of the Nureead Purgunna which is under cultivation, that which is capable of cultivation, but neglected and lying waste, and that which is wholly unproductive, are shown in the following table, framed from the General Statements of the Survey:—

	Beegas	w.	ww.	Acres	r.	p.
Cultivation	134359	17	4	78962	2	21
Purtur, or waste formerly cultivated.	7362	2	1	4326	2	27
Arable waste not before cultivated..	7829	7	18	4601	1	7
Disputed land, chiefly arable.....	329	0	12	193	1	19
Total arable land....	149880	7	15	88083	3	35
Unproductive land.....	27042	11	16	15892	3	7
Total area	176922	19	11	103976	3	2

Great proportion of the Arable Land under Tillage.

From this it appears that of the total area about 15 per cent. is unproductive as regards agricultural purposes, and this is about the usual proportion of inland Purgunnas in this province, which have no large tracts of salt or swampy ground within them. Of the total arable lands it will be observed, however, that nearly 90 per cent. is under tillage—a result which can only be equalled in the very finest, best peopled, and most prosperous parts of the country. In the amount of cultivation is included 1,920 beegas of fallow land, or such as has been waste for only a single season; if this be deducted, there will still remain a proportion of about 88 per cent.

Table of the Alienated Lands.

6. Although no village is entirely alienated from the State, yet the aggregate of land held by private individuals under various tenures is very large; as appears from the following table, framed from the Tullatees' numoona accounts, in which the quantities are inserted by computation, and not by actual measurement:—

	Nukra, or Free.		Paying Sulamee or Suwadeea.		Total.	
	Beegas	w.	Beegas	w.	Beegas	w.
Guraneea	2206	$8\frac{3}{4}$	7790	$15\frac{1}{4}$	9997	4
Vechaneea	7600	$2\frac{1}{2}$	23703	$0\frac{3}{4}$	31303	$4\frac{1}{4}$
Pusaeeta	7372	$15\frac{3}{4}$	736	5	8109	$0\frac{3}{4}$
Hureea & Runwuteea.	467	6	73	5	540	11
Chakreea	3183	8	1603	5	4786	13
Bareea	401	0	.....		401	0
Wuzeefa	503	17	.....		503	17
Wanta	5491	$7\frac{1}{2}$	10006	0	15497	$7\frac{1}{2}$
Total.....	27226	$5\frac{1}{2}$	43912	11	71138	$16\frac{1}{2}$
Total Government land by estimate					59642	7
Total alienated land by estimate					71138	$16\frac{1}{2}$
Total arable land					130781	$3\frac{1}{2}$
Unproductive waste by estimate					44990	$3\frac{3}{4}$
Total area of Purgunna..					175771	$7\frac{1}{4}$

Proportion of Revenue derived from the Alienated Lands, compared with that derived from the Government.

It appears, then, that of the arable land of this Purgunna, more than 54 per cent. is alienated; but a small portion only of this is lost entirely to the State, the greater part contributing directly by the payment of sulamees and suwadeeas, or indirectly by the payment of veeras, a considerable sum towards the general Revenue. The sulamees and suwadeeas paid by the alienated lands amount, according to the Tullatees' accounts, to about 72,118 rupees for a single year. This gives an average of about 1 rupee per beega if calculated upon the total amount of land alienated, and of about $1\frac{1}{2}$ rupee upon that only which is subject to any kind of payment. The Revenue derived directly from the Government lands, independent of veeras, appears from the same documents to be about 2,11,728 rupees, which, divided by 59,642, the estimated number of beegas of arable land belonging entirely to Government, gives an average of $3\frac{1}{2}$ rupees per beega. The bareea, or land held by Kolees, is found only in one village, Sorpoor; and Wuzeefa exists only in the kusba; the other tenures may be found to a greater or less extent in every village.

Soil of the Purgunna.

7. The soil in this Purgunna is classed under two divisions only, viz. goraroo, or land of a light sandy nature, and kaurda, or such as approaches to the black loam, and is used, or capable of being used, for the production of rice. The quantity of arable land classed under each will be seen from the following:—

	Beegas	w.	ww.	Acres	r.	p.
Land of goraroo soil.....	137557	3	1, or	80841	2	26
Land of kaurda soil	11994	4	2, or	7048	3	29

Nearly the whole of the Purgunna may, therefore, be said to consist of goraroo soil, as about 10 per cent. of the arable land only is classed as kaurda, and none falls under any other denomination.

Proportionate quantity of Land irrigated.

8. The proportion that is here found to exist between wet and dry tillage, between the land that is artificially irrigated and that which receives no other watering than by the annual rains, is shown below:—

	Cultivation.						Purtur.					
	Beegas	w.	ww.	Acres	r.	p.	Beegas	w.	ww.	Acres	r.	p.
Wet	9536	11	9	5604	2	15	69	3	17	40	2	26
Dry	124823	5	15	73358	0	5	7292	18	4	4286	0	1
Total	134359	17	4	78962	2	21	7362	2	1	4326	2	27

Reason of the small proportion shown.

It seems, then, that the proportion of irrigated land is only about 7 per cent., a proportion, probably, below that of almost any other Purgunna, even the poorest in the Province. Throughout a great part of the Nureead Purgunna water lies at so great a depth from the surface as to be unattainable but at the cost of a very large sum of money; and even were wells built, the labour of drawing up the water would be so great as almost to preclude the possibility of irrigating the fields. But to balance this disadvantage, the land in these parts possesses uncommonly productive powers, and it yields, under the careful and judicious husbandry of the industrious and substantial men who cultivate it, such abundant crops of bajeree, and dry grains in general, as place it on a full equality with ordinary irrigated ground. It must naturally follow, however, that scarcity arising from scanty or unequal falls of rain will be severely felt in this quarter. But although this dry crop is classed under the general term of bajeree, it in reality consists of a

variety of pulses also, which are sown together with the bajeree, but are much later in arriving at maturity. These pulses produce abundantly, even when the bajeree fails, and, therefore, form a valuable resource against the contingencies of seasons; and it is remarkable that when the bajeree does fail the pulses yield a more than ordinary crop. They afford, also, forage for cattle, which is here the more valuable from the complete want of grass or grazing ground.

Number of Wells.

9. Irrigation, limited as it is, is here carried on chiefly by means of wells. The total number of these, by the accounts of the Survey, proves to be 434; of which 247 are the property of Government, and 187 of private individuals: there are also 148 wells in a ruinous and useless condition, 78 of which are the property of Government; and it is estimated that all these might be repaired for little more than 30,000 rupees. The greatest quantity of irrigated land is to be found in the kusba, in Chuklasee, and Ootursunda: the first has 151 wells in use, the second 42, and the third 36. No village, with the exception of Dholee, is entirely destitute of wells, but several have only 1 or 2, used for drinking, and the household purposes of the inhabitants.

Productions of the Purgunna.

10. The productions of the Nureead Purgunna comprise all those commonly grown, and others also more rarely met with. The khurreef or early crops consist principally of bajeree, jowar, pulses, kodra, and all the poorer kinds of grain, rice, and tobacco; the rubbee or second harvest consists of wheat, barley, late tobacco, and, to a very small extent, opium; the huree, or third harvest, consists of late jowar, kang, cheena, and a species of vegetable called karelee; ginger, turmeric, and all those crops considered under the general head of "Maleeat," are also to be found here. The following table shows the quantity of land which has been measured by the Survey under each of the several descriptions of produce; and from this may be observed the relative extent to which the cultivation of each is carried; bajeree and jowar sown with pulses forming, beyond all comparison, the staple products:—

Table showing the relative extent to which each Crop is grown.

	Beegas	w.	ww.	Acres	r.	p.
Bajeree and jowar, with pulse crops ..	107587	16	6	63228	3	13
Dry grains of the poorer kind	15561	8	18	9145	1	21
Rice	5296	19	11	3113	0	1
Wheat and barley in fallow land ..	491	2	14	288	2	22
Garden produce	218	12	14	128	1	38
Kusoombee (a dye)	34	16	2	20	1	32
Sugar-cane	108	17	10	63	3	37
Tobacco	2494	15	4	1466	0	25
Cotton	21	17	18	12	3	18
Turmeric and adoo	90	16	0	53	1	18
Ufeem or opium	16	12	17	9	3	4
Deewula, chuna, rae, &c.	515	18	8	303	0	32
Wasul or fallow land	1920	3	2	1128	1	34
Total land in cultivation	134359	17	4	78962	2	21
Rubbee crops grown on parts of the above lands	4190	15	10	2462	3	23
Huree crops grown on the same ..	32	19	3	19	0	19

System of Culture.

11. The system of culture pursued here differs in no respect from that described in the Reports on the Duskroee and Dholka Purgunnas of the

The Poppy Flower, from which Opium is extracted.

Ahmedabad Zilla. The poppy flower, from which opium is extracted, has not, however, been noticed before; a few beegas only are cultivated with it, rather experimentally than as a permanent source of profit; and unless directly encouraged by Government, it is not likely to be much increased. The soil proper for it is the goraroo, or that mixed description of soil termed "Besur." The ground intended for it must be manured to the extent of 10 cart loads per beega, ploughed up several times, and watered: the seed, called kuskus, is then sown broad cast, 1 seer being required to a beega, and the land must be kept well weeded, and be watered every ten days until the flowers begin to blow. The cultivator prepares the land in November or December, a previous crop of bajeree having during the monsoon been reaped from it: the seed is sown in November or December, and the flowers blow in February. It is a crop that exhausts the soil but little, and may consequently be grown year by year in the same field. When the poppy is considered as sufficiently matured, the outer skin of the capsule of the flower is lightly slit, care being taken not to injure the internal membranes. After the lapse of a day and a night the juice which has exuded is scraped off with a small knife, and collected in small earthen pots, which are afterwards emptied into larger vessels: a little oil is rubbed over the knife and the pots, to prevent the liquor from adhering to them. Each flower will bear the operation repeated three times, at intervals of three days; and it is calculated that the flowers grown in a single beega will yield upon an average 7 seers of the drug. After the extraction of the juice, the flowers are allowed to run to seed, which is collected about twenty days afterwards, and forms a part of the cultivator's regular profits. The expense incurred in cultivating a beega with the poppy flower, and the return to be derived from it, may be estimated as follows:—

Manure, 10 cart loads				Rs. 7	2 0
Ploughing four times				3	0 0
Seed				0	0 25
Weeding				1	0 0
Watering				16	0 0
Gathering the juice or opium				8	0 0
Expenses of cultivation				35	2 25
Beegotee or Government rent				4	0 0
Total expenses				39	2 25
Produce—					
Opium (7 seers)	Rs.	35	0 0		
Seed (4 maunds)		8	0 0		
				43	0 0
Profit to the cultivator				3	1 75

Tobacco.

12. The tobacco of this Purgunna is grown either with or without irrigation; in the former instance it is called "Peet," and yields the greatest quantity, in the latter it is termed "Korant," and produces the finest quality. Land intended for korant tobacco must be ploughed over several times in June, and manured with 15 cart loads of manure to the beega. The seed is sown at the commencement of the monsoon in "Duroowaree," or seed beds, but the plants are not transplanted till September: they are then placed in furrows, at the distance of a hath or cubit from each other, so that 10,000 plants occupy the space of 1 beega. The leaves are ready to be plucked in February, but in the mean time great care must be taken to nip

off all the buds which successively appear, as, if allowed to flower and seed, the leaves become thin and shrivelled, and are of little or no value. The tobacco plant is liable to be blighted by frost, and it is also subject to two kinds of disease, termed "Bhambee" and "Toonteea"; the former is the most fatal, but both are very destructive. The peet is more subject to blight than the korant.

Cotton.

13. The cotton plant of this part of the country is a triennial, yielding no produce the first year, and its best crop the third and last year. It is usually sown in conjunction with bajeree or baota, in the proportion of 7 drills of grain to 1 of cotton. A beega will yield at the utmost 7 maunds, and its average produce may be about 4 maunds of kupas, or uncleaned cotton, which, when cleaned, is reduced to one-fourth of its former weight: in the Broach Purgunna the loss is only two-thirds.

Estimate of the greatest, least, and Average Produce per Beega of each Crop.

14. As the best method of showing the fertility of soil, an estimate of the greatest, least, and average return yielded per beega, in good seasons, by each of the principal descriptions of produce grown in this Purgunna, is given below, and from this a comparison with other parts of the country may be easily drawn :—

	At the Greatest.	At the Least.	At an Average.
	Maunds.	Maunds.	Maunds.
One beega of			
Bajeree in uwul land produces	20	12	16
„ doyum „	16	8	11
„ soyum „	8	4	6
Kuthol grown with bajeree	16	6	10
Baota in uwul land	35	20	27
„ doyum „	30	14	21
„ soyum „	12	6	8
Kodura with toowur in uwul land	40	20	28
„ „ doyum „	32	16	22
„ „ soyum „	18	10	14
Rice, irrigated, in uwul land..	40	25	33
„ „ doyum „	35	15	28
„ „ soyum „	16	8	12
Rice not irrigated in uwul land	30	20	24
„ „ doyum „	24	10	16
„ „ soyum „	16	8	12
Sathee, or coarse rice..	12	6	8
Tobacco, peet, in uwul land..	60	40	50
„ „ doyum „	40	25	32
„ korant, in uwul land	30	20	24
„ „ doyum „	24	16	20
Guwar in uwul land	12	8	10
„ doyum „	10	4	7
„ soyum „	6	3	4
Buñtee in uwul land..	35	25	27
„ doyum „	32	16	22
„ soyum „	12	6	10
Kang chuna, or deewula in uwul land ..	16	10	11
„ „ „ doyum „ ..	12	6	9
„ „ „ soyum „ ..	8	4	6
Kusoombee in uwul land	6	4	5
„ doyum „	4	2	3
Wheat, sankha, or in fallow, in uwul land ..	40	28	32
„ „ „ doyum „ ..	32	20	28
„ „ „ soyum „ ..	12	6	8

	At the Greatest.	At the Least.	At an Average.
	Maunds.	Maunds.	Maunds.
Wheat, after crop, in uwul land	35	25	31
„ „ doyum „	30	20	25
„ „ soyum „	12	6	8
Wheat, chaseea, or not irrigated, in uwul land.	20	12	16
„ „ „ doyum „	16	8	10
„ „ „ soyum „	8	4	6
Barley, sankha, in uwul land	45	25	36
„ „ doyum „	35	20	30
„ „ soyum „	12	6	8
Barley, after, in uwul land	40	20	30
„ „ doyum „	32	15	25
„ „ soyum „	12	4	8
Jowar in uwul land	20	10	14
„ doyum „	16	8	10
„ soyum „	8	4	6
Sugar-cane	100	60	72
Murchee or chilies	150	70	100
Reengnee	150	100	120
Lusun or garlic	120	40	75
Udruk or ginger	200	80	125
Huldur or turmeric	250	100	132
Metee, jeera, sursow, soowa, &c.	15	4	10
Ufeem, or the poppy flower	8	5	7

Table of the greatest and least expense and return per Acre in English Money.

15. The following table shows in detail the greatest and least expenses attending the cultivation of each crop, and the greatest and least return to be expected from it, calculated in seers, considered equivalent to English pounds avoirdupoise, and in English money to an English acre. It is framed to correspond exactly with the table given in the Reports of the Ahmedabad Zilla :—

Description of Produce.	Expenses of Culture per Acre.												Government Rent.			Total Expenses and Rent.			Produce per Acre.									Profit to the Cultivator.			Loss to the Cultivator.		
	Manure.			Seed.			Ploughing, Weeding, Guarding, &c.			Watering.			Total Expenses.						Grain.			Value of the Grass, Straw, &c.			Total Value of Produce.								
				Quantity.	Value.														Quantity.	Value.													
	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Bajeree Kuthol, greatest produce	0	16	10½	11	0	0	6¼	1	3	10¾	....			2	1	4	2	7	9¾	4	9	1¾	2440	5	10	3	0	3	11¼	5	14	2¼	1	5	0½	....		
Ditto, least ditto		....		11	0	0	6¾	0	19	1½	....			0	19	8¼	0	7	10½	1	7	6¾	1080	2	9	6	0	3	11¼	2	13	5¼	1	5	10½	....		
Jowar Kuthol, greatest		....		61	0	3	11¼	0	13	9¼	....			0	17	8½	0	11	9¾	1	9	6¼	210	0	11	9¾	0	19	8¼	1	11	6	0	1	11¾	....		
Ditto, least		....		....		....			....		....				....			....		1	9	6¼	70	0	3	11¼	1	2	9¼	1	6	8½		....		0	2	9¾
Baota, greatest	0	15	2¼	14	0	1	11¾	1	11	11	....			2	9	1	2	6	1½	4	15	2½	2380	5	6	11½	0	3	11¼	5	10	11½	0	15	9	....		
Ditto, least		....		14	0	1	11¾	1	10	5¾	....			1	12	5¾	0	15	9	2	8	2¾	1020	2	5	10	0	3	11¼	2	9	9¼	0	1	6½	....		
Kodura Toowur, greatest	0	16	10½	21½	0	0	11½	0	18	6¾	....			1	16	4¾	1	3	7½	3	0	0½	Kodura 1700 Toowur 680	3	18	9	0	3	8	4	2	4¾	1	2	4¼	....		
Ditto, least		....		21½	0	0	11¾	0	16	10½	....			0	17	10¼	0	9	0	1	6	10¼	Kodura 680 Toowur 540	2	3	3¾	0	1	4¾	2	4	8½	0	17	10¼	....		
Rice, greatest		....		42	0	2	4½	1	7	0	....			2	6	3	2	6	1½	4	12	4½	2720	7	3	5¼	0	3	11¼	7	7	4½	2	15	0	....		
Ditto, least		....		42	0	2	4½	1	3	7½	....			1	6	0	0	11	9¾	1	17	9¾	816	2	2	9	0	2	3	2	5	0	0	7	2¼	....		
Coarse Rice, greatest		....		50	0	1	11¾	0	14	4	....			0	16	3¾	0	7	10½	1	4	2¼	816	1	8	8¼	0	2	3	1	10	11¼	0	6	9	....		
Ditto, least		....		....		....			....		....				....			....		1	4	2¼	408	0	15	2¼	0	2	3	0	17	5¼		....		0	6	9
Wheat, Chaseea, greatest		....		60	0	3	11¼	0	16	3¾	....			1	0	3	0	19	1½	1	19	4½	1360	3	6	11¼	0	1	11¾	3	8	11	1	9	6½	....		
Ditto, least		....		60	0	3	11¼	0	16	3¾	....			1	0	3	0	7	10½	1	8	1½	544	1	6	6¼	0	1	1½	1	7	6¾		....		0	0	6¾
Guwar, greatest		....		5	0	0	2¾	0	16	3¾	....			0	16	6½	0	11	9½	1	8	4¼	816	1	16	0	0	1	1½	1	17	1½	0	8	9¼	....		
Ditto, least		....		5	0	0	2¾	0	16	3¾	....			0	16	6½	0	7	10½	1	4	5	280	0	12	9½	0	0	6¾	0	13	4¼		....		0	11	0¾
Tul Guwar, greatest		....		6	0	0	4	0	17	1¾	....			0	17	6¾	1	3	7½	2	1	1½	Tul 210 Guwar 816	2	19	7½	0	2	3	3	1	10½	1	0	9	....		

| | | |

Description of Produce.	Expenses of Culture per Acre.																Government Rent.			Total Expenses and Rent.			Produce per Acre.									Profit to the Cultivator.			Loss to the Cultivator.		
	Manure.			Seed.			Ploughing, Weeding, Guarding, &c.			Watering.			Total Expenses.									Grain.			Value of the Grass, Straw, &c.			Total Value of Produce.										
				Quantity.																		Quantity.																
	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	lb. or Seers.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Onions, greatest	1	13	9	1	0	4	6	1	7	0	2	9	6	5	14	9	1	13	7½	6	18	4½	10200	8	16	7½	....			8	16	7½	1	18	3	....		
Ditto, least	....			....			....			....				5	14	9	0	7	10½	6	2	7½	6800	5	18	1½	....			5	18	1½	....			0	4	6
Sukureea, greatest ..	1	8	8¼	....	0	2	3	1	4	9	2	14	0	5	9	8¼	0	15	9	6	5	5¼	10200	10	7	0	....			10	7	0	4	1	6¾	....		
Ditto, least	....			....			....			....			....	5	9	8¼	0	7	10½	5	17	6¾	6120	6	4	10½	....			6	4	10½	0	7	3¾	....		
Sugar-cane, Ratee, greatest ..	3	6	11¼	19000	3	8	0¾	11	9	6	5	14	9	23	19	3	2	17	4½	26	16	7½	6800	47	16	3	....			47	16	3	20	19	7½	....		
Ditto, least ..	....			....			....			....			....			....			....	26	16	7½	4080	28	13	9	....			28	13	9	1	17	1½	....		
Chilies, greatest	1	13	9	1	0	3	11¼	1	19	2¾	3	8	7½	7	5	6½	1	14	7	9	0	1½	10200	19	2	6	....			19	2	6	10	2	4½	....		
Ditto, least	1	13	9	1	0	3	11¼	1	16	0	3	8	7½	7	2	3¾	0	19	1½	8	1	5¼	3400	6	7	1½	....			6	7	1½	....			1	14	3¾
Reengnee, greatest ..	1	13	9	1	0	3	11¼	1	19	2¾	3	8	7½	7	5	6½	1	14	7	9	0	1½	10200	10	8	1½	....			10	8	1½	1	8	0	....		
Ditto, least	1	13	9	1	0	3	11¼	1	16	0	3	8	7½	7	2	3¾	0	19	1½	8	1	5¼	6800	6	18	11¼	....			6	18	11¼	....			1	2	6
Metee, Jeera, Usaleea, Sursow, Ujma, greatest	1	0	3	68	0	7	7	1	2	11	1	18	3	4	9	0¼	1	2	6	5	11	6¼	1620	5	14	9	....			5	14	9	0	3	2¾	....		
Ditto, least ..	....			....			....			....			....	4	9	0¼	0	15	9	5	4	9¼	540	3	0	9	....			3	0	9	....			2	4	0½
Garlic, greatest	2	2	2¼	544	3	16	6	1	17	1½	2	17	4½	10	13	2¼	2	9	6	13	2	8¼	6800	23	18	1½	....			23	18	1½	10	15	5¼	....		
Ditto, least	....			....			....			....			....	10	13	2¼	0	15	9	11	8	11¼	2720	9	11	3	....			9	11	3	....			1	17	8¼
Ginger, greatest	2	17	4½	1088	7	13	0	4	15	7½	5	14	9	21	0	9	2	9	6	23	10	3	13600	47	16	3	....			47	16	3	24	6	0	....		
Ditto, least	....			....			....			....			....			....			....	23	10	3	5440	19	2	6	....			19	2	6	....			4	7	9
Turmeric, greatest ..	2	17	4½	1360	7	13	0	5	3	6	5	14	9	21	8	7½	2	9	6	23	18	1½	17000	47	16	3	....			47	16	3	23	18	1½	....		
Ditto, least	....			....			....			....			....			....			....	23	18	1½	6800	19	2	6	....			19	2	6	....			4	15	7½

Number of Fruit Trees.

16. The lands of most of the villages in this Purgunna are adorned with numerous groves of fruit trees, and the fields in many partsare enclosed with thick and high hedges, composed chiefly of the thorny milk bush. The beautiful appearance of the country may be judged from the total number of fruit trees which were counted and registered in each field, during the progress of the Survey ; it is as follows :—

Total number of	mango	trees.....	50807
„ „	muhora	„	17542
„ „	raen	„	29273
„ „	tamarind	„	3044
		Total fruit trees.....	110666

Constitution of the Villages.

The villages themselves are for the most part of a large and fine order, well constituted, and well appointed, with full and complete establishments of artizans and servants, and all the appurtenances of thriving communities.

The Nurwa.

The "Nurwa" constitution probably prevailed originally in all, or nearly all of them ; but the many vicissitudes to which the country has at different periods been subjected has caused it often to be broken up, either partially or wholly, and at the present day there are only 16 which can be considerad as really nurwa. The lands of nurwa villages are divided into certain large divisions (from 2 to 7) called bhags or patees ; and these are subdivided into smaller parcels (from 10 to 200) called rupees, anas, pugrees, or pans ; and these again into fractional parts. The superior Bhagdars, or holders of shares, are collectively responsible for all demands of public Revenue ; and the inferior Bhagdars are collectively responsible for that portion of the Revenue which is assigned to their bhag. The shares or divisions, both major and minor, are sometimes of equal amount, and sometimes of unequal, but always in a known and recognised proportion ; so that the Revenue due by the whole village may be exactly apportioned among them. It seldom happens that the whole of the land is included in the nurwa division : there is always a large quantity of what is termed "Muzmoon" land, the signification of the word muzmoon being the direct contrary to nurwa—that is, all land not nurwa is necessarily muzmoon. This land is sometimes divided in equal proportions among the Nurwadars, who are thereby rendered responsible for it, and at other times it is let out yearly to any cultivator that will take it by the Tullatee of the village. It is also generally found, that many of the shares, through the emigration, bankruptcy, or death without heirs, of the shareholders, have lapsed and fallen in. For these, according to the true spirit of the nurwa system, the remaining Bhagdars are responsible ; but in the present impaired state of the nurwas they are not always made so, the lapsed shares being occasionally leased out in conjunction with the muzmoon, and brought to account separately from the nurwa. The " Phala" or quota to be paid by each share is either fixed or varying: when it is fixed, the rents of the muzmoon lands or of the broken shares constitute the fluctuating part of the Revenue ; when it varies, the whole Revenue of the village being settled, the collections are first made from the muzmoon lands, from the alienated lands, the veeras, and from every source except the nurwa, and placed to account ; after which the remaining balance is divided in equal proportions among the shares. The nurwa is considered strictly as property : it is saleable from one person to another, and inherited subject to all the rules and customs by which the inheritance of any other kind of property is guided. Sons inherit equally, and hence the almost incredible subdivisions of the nurwa ; but the holder of the minutest portion claims all the

privileges of a Pateedar, and takes his place in the village concerns before all other ordinary members of the community. The alienated nurwa lands are those which the proprietors have sold on their own responsibility, quite independent of the Government, to which they still continue answerable for the full original rent. But if bhags be broken up, it generally happens that the holders of such lands have held them for so long a period as to render a recognition of their claims necessary. Much land held in this manner has been resumed, burthened only with a sant or annuity to the former holders; and this sant, if the bhags be again restored, must be paid by the Bhagdar within whose lot the lands saddled with it happen to be; and this is what is termed nurwa santhela land. The "Gubhan" or village site is sometimes divided among the nurwas, and sometimes not.

The Khatabundee.

17. Of the senja villages several are "Khatabundee," that is, the assessment is levied by khatas or distinct estates. The khata may consist of any number of beegas, and the holder pays either a certain fixed yearly rental for the whole in a lump, or he pays a very high beegotee on a certain portion of the khata, called the veheta or the burthened, and for all the rest as far as his means of cultivation extend, only a very light rate. Thus, in Chulalee Pateedars pay for 12½ beegas at the rate of 25 rupees per beega, and for all the other lands belonging to their khata only 4 rupees per beega, whatever may be the class of soil or the description of crop cultivated. The khata approaches nearer than any other system to the nurwa; it is considered as property, and descends from father to son; but it does not appear to be often sold. In three villages (Rudwanuj, Khakunpoor, and Dholeta,) all the fields are leased out individually every year, without reference to the exact quantity of the land, by the Tullatee, at what is called a "Phirta Gunwut," or varying rent, the cultivator of the last year having always the preference, and never being dispossessed so long as he is willing and able to pay a proper rent.

Peculiarity of system in three Villages.

Collections made by Beegotee.

18. The collections throughout this Purgunna, both by the Tullatee from the cultivators of the muzmoon lands, and by the Nurwadars from their under tenants, are made, with a few very trifling exceptions, universally by beegotee. The usual rates of payment per beega in villages strictly senja are as follows:—

On kaurda land	from 2	to 6	rupees.
„ goraroo koowetur.....	„ 6	„ 12	„
„ „ pokreea, uwul	„ 3	„ 6	„
„ „ „ doyum	„ 1	„ 4	„
„ „ „ soyum.....	„ 2	„ 1½	„

Veeras.

The veeras are in general rather heavy, and in some instances complaints are made regarding them. They are levied under a variety of designations, and in a variety of modes, upon the ploughs, the khatas, or the families of the cultivating classes, and upon the houses or the families of the trading; often, also, a fixed sum is placed upon the whole of a caste or trade, to be divided among themselves at their own pleasure. The following curious specimen of village customs is extracted from the dara or rule of assessment in use at Arara:—

Specimen of Village Customs.

"The Loohar or blacksmith receives annually 1¼ maunds of grain per plough from each cultivator, and keeps all agricultural implements in repair free of any other charge. The Sootar or carpenter receives in like manner, and on the like conditions, 1½ maund; the Koomar or pot-maker, 1 maund; the Durjee or tailor, 1 maund; and the Walund or barber 1 maund. Upon any marriage among the villagers, the blacksmith presents a lamun deewa

(a small utensil of iron used as a lamp), and is presented in return with 1 rupee; the carpenter presents a "Bajut" or wooden stool, and is presented in return with 1 rupee; the pot maker supplies earthen pots for the marriage feast, and is presented with 1½ rupee. The tailor has no offering to make, but receives upon the marriage of a boy ½ rupee, and upon that of a girl 7 pice. The barber receives 1½ rupee upon the marriage of a Pateedar, and 1 rupee upon that of a Kolee."

Relative extent of each System.

19. The extent to which each system of constitution and assessment prevails will be perceived from the following short statement, drawn from the Tullatees' accounts:—

	Beegas	w.
Nurwa, veheta, and khatabundee land.....	39254	7
Muzmoon and beegotee land	20223	1
Bhagbutaee land	164	19

Net Land Revenue for 6 successive years.

20. The net Land Revenue paid by the Khalsa villages of the Nureead Purgunna during 6 years, or from Sumwut 1874 to 1879 (A. D. 1818 to 1823), appears from the accounts of the Kucheree to have been annually as follows:—

Sumwut.		A. D.		Rupees.
1874	or	1817-18	.....	244195
1875	„	1818-19	.....	275451¾
1876	„	1819-20	.....	287795¼
1877	„	1820-21	.....	286520¾
1878	„	1821-22	.....	283768½
1879	„	1822-23	.....	277419¾

Average of the Net Revenue per Beega and per Acre.

The average net Revenue for a single year, therefore, may be taken at 2,75,858 rupees; the village charges may average about 31,530 rupees, the addition of which would make the average gross Revenue of Government equal to 3,07,388 rupees. The following table shows the proportion which the net Revenue bears to the beega and acre in rupees, and to the acre in English money, (estimating the rupee at 2*s.* 3*d.*) throughout the whole tract of villages:—

	On Total Cultivated Land.	On Total Arable Land.	On Total Area.
	Rs. q. r.	Rs. q. r.	Rs. q. r.
Per beega	2 0 33	1 3 36	1 2 23
Per acre	3 2 17	3 0 52	2 2 61
	£ s. d.	£ s. d.	£ s. d.
Per acre	0 7 11½	0 7 0¼	0 5 11½

Revenue paid by single Villages.

The Revenue paid by single villages varies from nearly half a lakh to one thousand. The kusba pays 48,000 rupees, independent of all the town duties, a payment which probably could not be paralleled by any other single village in Guzerat. The village of Or pays 22,000 rupees, and Samurkha pays an equal amount; Sarsa pays 20,000; and Cheekodra 12,000 rupees. If the gross Revenue shown above be divided equally among all the villages, it will show an average to each of more than 8,000 rupees.

Comparison between the Total Produce of the Purgunna and the Revenue paid.

21. By the produce tables annexed to the remarks on each village, it appears that the gross produce of the Purgunna for a single year amounts to 7,98,658 rupees: one-half the gross produce is usually considered a fair standard of the gross Government Revenue, which in this instance would be

3,99,329 rupees ; but as the produce of the whole of the lands indiscriminately is included, it is necessary to deduct 1,30,547 as the nooksan, or loss of Government upon the alienated lands, being the difference between the present payments made by the whole of the alienations together, and the amount which would be paid were there no alienations at all, or were they all assessed at the same rate as the Government lands. This leaves 2,68,781 rupees as a fair estimate of what the gross Revenue should be under the present state of cultivation to which the Purgunna has advanced.

Table of the Population.

22. An abstract of the population of these villages, according to the minute census made by the Survey, is given below :—

	Males.	Females.	Total.
Koonbees, Lewa and Kurwa	10443	8027	18470
Rajpoots	916	763	1679
Kolees	6571	5513	12084
Brahmuns and Veeas	3655	3255	6910
Bhats, Charuns, Tupodhun, Tragalas ..	774	589	1363
Buneeas and traders	2936	2596	5532
Baosur and Cheepa (dyers)	228	188	416
Kacheea, Kureea, Choonara	509	444	953
Wuswaeeya, or village establishment.. ..	3069	2573	5642
Dhers, &c. (low castes)	2395	1913	4308
Various other castes	1188	773	1961
Total Hindoos..	32684	26634	59318
Moosulmans	2516	2068	4584
Total	35200	28702	63902
Slaves			756
Grand Total			64658

General and Proportional Resources.

The agricultural stock, cattle, and general resources which the above population commands are enumerated below :—

Square Miles.	Villages.	Houses.	Souls.	Horned Cattle.	Horses and Camels.	Sheep and Goats.	Ploughs.	Carts.	Net Revenue—the Mean of 6 Years.
									Rs. q. r.
dcls. 162·46	36	16587	64658	30822	209	4139	5592½	3115	275858 2 25

The proportion which the above bear to the square mile and the acre is as follows :—

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.
						Rs. q. r.
Per square mile ..	102	398	190	34	19	1698 0 4
Per acre	$\frac{2}{3}$	$\frac{5}{8}$	$\frac{1}{4}$	$\frac{1}{29}$	$\frac{1}{84}$	2 2 61

The Population remarkably great.

The proportion of souls to the square mile is by the above table so very large, and so much in excess of any other Purgunna of the Province as yet surveyed, that it is necessary to mention that the population of the town of Nureead is included: although the greater part of the population may not be agricultural, yet the whole are mainly indebted for their support to the surrounding villages, and therefore may be considered as forming an integral

portion of the Purgunna. In the Broach Purgunna, where the same plan was adopted, and the entire population of the town and fort included, the number of souls to the square mile was found to be 266; here it is 398: if the population of the fort of Broach be excluded, the number is 228; and here, if the population of the town of Nureead be entirely excluded, still there will remain a proportion of 281. In cattle, ploughs, and other agricultural resources, this Purgunna possesses an equal superiority, and in the rate of Revenue which it pays it is inferior to the Broach Purgunna, but to no other. It will be observed from the table given above that the Koonbees form more than one-fourth part of the whole population, and to these men the prosperity of the country is to be attributed. The excess of the males over the females is equally remarkable here as in other parts: this might be attributed in some degree to the concealment of their females by the Natives; but in so large a town as Nureead, where the operation of such a cause would be chiefly seen, we find the difference to be not greater, or even so great, as in the smaller villages, where it can have no effect whatever. The excess here is as 1 to 0·81, or as 100 to 81. There are about $3\frac{3}{4}$ souls to each house throughout: each plough cultivates about 14 acres of ground, and pays 42 rupees of Revenue.

Koonbees the preponderating Caste.

Excess of Males over the Females.

23. The tract of country of which the Nureead Purgunna forms a part, and which is known under the general term of Cherotur, is generally level; but sometimes it is prettily diversified with gentle undulations; and it is throughout beautifully wooded. The scenery towards the Muhee assumes a bolder character: the bed of that river is occasionally rocky, and the ravines about it high and precipitous, with frequently rivulets of living water flowing through them, which never dry up during the hottest months. Among these ravines are seated the Mehewass villages, the inhabitants of which were once the terror of the whole country round, and still bear a bad and turbulent character. An ancient city is spoken of as having existed upon the bank of the Muhee near the present village of Sundulpoor; but if it ever existed at all, it must have been at some very remote era, though some traces of it may certainly be perceived. At the village of Khanpoor there is a good ford, much frequented, as being the high road between Baroda and the celebrated temple at Dakor: the sand is heavy for loaded carriages, but the water during the dry season is not above knee deep. During the monsoon a boat plies, belonging to Badrooah, a large village on the opposite or left bank of the river. The piety of wealthy Hindoos has led them to construct dhurumsalas, wells, and other conveniences for travellers, upon all the roads leading to Dakor. Two fine dhurumsalas have been constructed at Khanpoor; but however convenient these may be for travellers, the inhabitants of the village are much incommoded by the constant thoroughfare, and complain of the many evils it entails upon them. But of all the buildings which owe their origin to this religious feeling, the most worthy of notice is a splendid tank lately erected near the village of Seelee by a Native lady of the name of Balabhye, the widow of Mulhar Narayen or Mulhar Bhow, an Officer in the Gaekwar service. This magnificent work was in progress at the time of the Survey, and it was calculated that the whole cost, together with a dhurumsala, temple, and well, which were intended to adorn the bank, would not be less than 25,000 or 30,000 rupees. The benefit derived from this work during the severe season of 1824 A. D. was very great, as it afforded subsistence to a number of labourers, who received their daily hire regularly every evening, and thus alleviated the distress that would have otherwise been more generally felt.

General appearance of the Country.

The Muhee River.

Remarkable Buildings & Tanks.

Particularly one near Seelee.

Time occupied by the Survey, and its general result.

24. The Survey of this Purgunna was commenced in A. D. 1821, and concluded in A. D. 1824. From the intermixture of the villages it was necessarily carried on in conjunction with other Purgunnas, and has therefore occupied a longer space of time than other Purgunnas which lie compactly together, and are finished at once. The present measurement shows the total of the arable land 18,770 beegas in excess of the Tullatees' estimates, but the unproductive waste land is short of that shown in the Tullatees' accounts by 17,948 beegas; so that the general area of the Khalsa villages of the Purgunna appears to be only 822 beegas in excess. There are 49½ beegas or 29 acres of land in dispute between the Rastee villages, and 51 beegas or 30 acres between the Mehewassee villages of this Purgunna, and those of the Gaekwar territory: these amounts are not included in any of the above totals; and when these disputes shall be adjusted, an addition of as much land as shall fall to the share of this Purgunna can be easily made.

List of the Documents framed by the Survey.

25. The following is a list of the various documents which the Survey of this Purgunna furnishes for the use and information of the Collector's Department:—

A kurda, or detailed register of the lands, field by field, of each of the Government villages, transcribed from the original chopra or field book, in the Guzeratee language. This kurda contains 11 columns: viz. 1*st*, the number of the field in the Tullatee's record; 2*nd*, the number of the Survey; 3*rd*, the name and boundaries; 4*th*, the soil; 5*th*, the owner or tenant; 6*th*, the cultivator; 7*th*, the estimated quantity of land by the Tullatee's accounts; 8*th*, the quantity by the measurement of the Survey; 9*th*, the trees upon the fields; 10*th*, the several kinds of produce; 11*th*, miscellaneous remarks.

Abstract statements, in English and in Guzeratee, for each of the Government villages, of the lands, produce, population, and stock, together with the dara, or system and rate of assessment, and the receipts and disbursements of Revenue for a given year.

General Statements, in English and Guzeratee, formed from the above for the whole Purgnnna, comprising—

No. 1.—The amount of the several descriptions of land in each village, classed under the different varieties of soil, according to measurement.

No. 2.—The different descriptions of produce, forming the first crop, under which the lands were found at the period of Survey.

No. 3.—The second and third crops; the wells, in use and decayed, with an estimate for repair of the latter; and the trees.

No. 4.—The amount of the several descriptions of alienated land, as estimated in the Tullatees' accounts, together with the gross Revenue paid by each entire village to Government, and the average rate of this upon the whole of the arable lands.

No. 5.—The assessments, disbursements, and total estimated proceeds, according to the Tullatees' accounts.

No. 6.—The houses, and population according to castes and occupations; the cattle, ploughs, carts, &c.

No. 1 *Supplemental.*—Corresponding statement to No. 1 in British statute acres.

No. 2 *Supplemental.*—Comparison of the Survey measurements with the Tullatees' accounts of the lands; showing, also, the lands released from a disputed state by boundary settlements, and those which still remain involved in disputes.

Authenticated copies, in Guzeratee, of the razeenamas taken during the progress of the Survey for the adjustment of boundary disputes.

Remarks in English on the general condition, tillage, assessment, and resources of each village, and a general report on the whole Purgunna. These remarks occupy a volume containing 182 folio pages.

Topographical plans of the whole of the villages, both Government and alienated, on a scale of 5 to 1 mile.

A reduced plan of the whole Purgunna, formed from the above large plans, on a scale of 1¼ inch to 1 mile, exhibiting the situation of the villages, with their boundaries, and a complete delineation of the face of the country.

Much time has necessarily been occupied in arranging and completing these several documents; but on the close of the land measurement of each village, the result was at once placed at the disposal of the Native Revenue Officers of the Collectorate, by copying, on the spot, the measured quantity of each field and arable portion of land into the Tullatee's kurda. At the same time a duplicate of the original chopra, in which the calculations were made by distinct persons, and by such a reversed process as that one should be a proof to the other, was formed and prepared with the greatest care for the use and reference of the village Patels and Ryuts.

Officers employed.

26. This Purgunna was surveyed under the superintendence of Captain Ovans, of the 1st European Regiment, assisted by Lieutenant Keys, of the 6th, and Lieutenant Reynolds, of the 12th Regiment Native Infantry.

J. CRUIKSHANK,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 20th December 1826.

THE OOMRET AND BHALUJ TUPPAS.

Situation, and general character.

ATTACHED to the Nureead Kucheree are the two kusbas of Oomret and Bhaluj, together with the dependent pooras which have from time to time been formed from the extensive lands originally belonging to them. The kusbas and the pooras were for a long period considered in Revenue settlements as united together, paying one "Ankra" or individual sum; but since they passed into the possession of the British Government in A. D. 1817, they have been regarded as so many distinct villages, and forming two separate Tuppas. They are situated from 10 to 16 miles to the East of the town of Nureead, and border upon the villages of that Purgunna, in such a manner as to lead to the supposition of their having, at an earlier period, formed a part of it; and by their addition, the Nureead Purgunna becomes a compact and regular figure. In character and productive qualities they assimilate to the fine Nureead villages already particularised, the soil being entirely goraroo, and irrigation little attended to in consequence of the great depth from the surface of the ground at which water lies. The face of the country presents, for the most part, a succession of rises or undulations, which are open and cultivated, although of poor soil, while the hollows are often planted with fine trees, and are found to possess great fertility.

Town of Oomret.

2. The kusba of Oomret is a fine town, containing 3,030 houses, and a population of 11,823 souls. The most numerous classes of people appear to be the Kherawal Brahmuns and Buneeas, whose occupation, for the most part, is trade, and as their united numbers amount to more than half the whole population, it will be seen how small a proportion of the inhabitants of this town can be called exclusively agricultural. There are upwards of 1,000 Moosulmans, the greater part of whom are cultivators, and the rest employed as Peons in the Kucheree, and as Rawuneeas, or Police Watchmen. There are several fine tanks about the town, and scattered through its environs are a number of the finest wells, with raised channels built to the height of 3 and 4 feet, for the conveyance of water to the surrounding fields. The lands attached to the kusba are extensive, and of a very superior description, producing garden stuffs and other valuable crops in great abundance; whence is paid to Government a Revenue so high as to average nearly 5 rupees upon every acre of arable land.

Bhaluj.

3. The kusba of Bhaluj is a village of the finest order, but cannot be classed as a town. It contains 683 houses, and a population of 2,449 souls, the whole, or nearly the whole of which is agricultural. Among them there is a body of Moosulmans, who once possessed sufficient power to contend even with the ruling authorities. Though turbulent, however, their presence was found at all times so valuable a security against the neighbouring Bheels of the Muhee Kanta, that instead of being crushed, as they might have been, grants of land and of money were made to them, which they are still allowed to retain. The lands attached to the kusba of Bhaluj are inferior to those of Oomret, and the produce consists almost entirely of dry grains; nevertheless, the Revenue which it pays averages nearly 4 rupees per acre of arable land.

The dependent Pooras.

4. The pooras attached to these two kusbas are villages of a very inferior description, if considered with reference only to the state of the houses and condition of the people; but in point of Revenue they may rank with the finest villages of the Province. In several the arable land pays at the rate of 5 rupees per acre, and in one instance even so high as $7\frac{3}{4}$ rupees per acre. The pooras of Oomret in particular appear to have been much over assessed, as will be seen from the repeated observations made in the volume of remarks relative to them. The people in these pooras are generally much distressed for want of water; and certainly, when they contribute so much towards the general Revenue of the State, a small portion of it might be allotted to provide them with good and substantial wells; and, indeed, there is reason to fear, that if this want be not supplied, some of them may be deserted by the inhabitants.

High rate of Revenue paid by them.

Want of Wells.

Superficial Area.

5. The Oomret Tuppa, including the kusba itself, consists of 5 villages, and the Bhaluj of 11; the superficial contents of each, according to Survey, are shown below:—

	Square Miles.	Standard Beegas.	Statue Acres.
	dcls.	Beegas w. ww.	Acres r. p.
Oomret	11·46	12479 19 16	7334 1 28
Bhaluj	16·43	17896 13 17	10517 3 7

Portions under Cultivation and Waste.

The portions of the above area which at the time of the Survey were under cultivation, waste, or unproductive, are as follows:—

	Oomret.						Bhaluj.					
	Beegas	w.	ww.	Acres	r.	p.	Beegas	w.	ww.	Acres	r.	p.
Cultivation	8952	16	5	5261	2	3	12196	13	11	7167	3	28
Purtur	650	0	7	382	0	1	2052	10	6	1206	1	0
Arable waste ..	993	11	10	583	3	27	1404	15	10	825	2	12
Total arable ..	10596	8	2	6227	1	32	15653	19	7	9199	3	1
Unproductive ..	1883	11	14	1106	3	35	2242	14	10	1318	0	6
Total area ..	12479	19	16	7334	1	28	17896	13	17	10517	3	7

The proportion of the arable land which is alienated, and that which is held immediately by Government, appears from the following statement of the alienated lands under several heads as they are shown in the Tullatees' accounts; the quantities being estimated, and not as ascertained by actual measurement:—

Alienations according to the Tullatees' Accounts.

	Oomret.						Bhaluj.					
	Nukra or Free.		Paying Sulamees or Suwadeeas.		Total.		Nukra or Free.		Paying Sulamees or Suwadeeas.		Total.	
	Beegas	w.	Beegas	w.	Beegas	w.	Beegas	w.	Beegas	w.	Beegas	w.
Guraneea	....		946	5	946	5	82	0	317	5	399	5
Vechaneea	5	10	505	5	510	15	140	10	30	0	170	10
Pusaeeta	219	10	258	5	477	15	1449	15	12	0	1461	15
Hureea	2	0	8	0	10	0	46	0	3	0	49	0
Chakreea	336	0	243	5	579	5	598	5	34	0	632	5
Wuzeefa	....		420	0	420	0	....		....		....	
Wanta	28	10	1229	6	1257	16	280	10	....		280	10
Total..	591	10	3610	6	4201	16	2597	0	396	5	2993	5

	Oomret.		Bhaluj.	
	Beegas	w.	Beegas	w.
Total Government land by estimate	3519	7	10546	0
„ Alienated „ „	4201	16	2993	5
Total arable	7721	3	13539	5
Unproductive by estimate	831	10	3566	5
Total area	8552	13	17105	10

The portion of the cultivated and purtur land which is artificially irrigated, and that which is not, appears (as surveyed) below:—

Quantity of Land artificially irrigated.

	Cultivation.						Purtur.					
Oomret.	Beegas	w.	w.	Acres	r.	p.	Beegas	w.	ww.	Acres	r.	p.
Wet	540	3	9	317	1	33	2	5	0	1	1	11
Dry	8412	12	16	4944	0	10	647	15	7	380	2	30
Bhaluj.												
Wet	145	17	11	85	2	37	4	6	2	2	2	4
Dry	12050	16	0	7082	0	31	2048	4	4	1203	2	35

The subjects of cultivation, and the extent to which each prevails, will be seen from the following summary:—

Subjects of Cultivation.

	Oomret.						Bhaluj.					
	Beegas	w.	ww.	Acres	r.	p.	Beegas	w.	ww.	Acres	r.	p.
Bajeree and jowar ..	6583	19	13	3869	1	19	11083	12	2	6513	3	4
Baota, kodra, &c. ..	1130	8	14	664	1	16	513	2	2	301	2	7
Rice	1015	19	3	597	0	11	455	17	2	267	3	24
Garden stuffs	86	11	14	50	3	21	7	1	16	4	0	26
Sugar-cane	15	17	7	9	1	12	44	6	15	26	0	9
Tobacco	27	3	4	15	3	33	7	19	13	4	2	30
Cotton .. .	1	3	5	0	0	29	....			....		
Areean	2	16	2	1	2	23	....			....		
Cheena	0	9	10	0	1	4	....			....		
Chuna or Gram ..	0	19	7	0	2	10	3	19	4	2	1	12
Ginger	38	15	6	22	3	5	....			....		
Fallow land	48	13	0	28	2	14	80	14	17	47	1	32
Total..	8952	16	5	5261	2	3	12196	13	11	7167	3	28
After crops	68	4	1	40	0	13	27	8	2	16	0	16

Number of Wells.

The total number of wells used for irrigation in the Oomret and Bhaluj Tuppas respectively is as follows :—

	Government.			Alienated.			Total.		
	In use.	Ruined.	Total.	In use.	Ruined.	Total.	In use.	Ruined.	Total.
Oomret	27	2	29	17	3	20	44	5	49
Bhaluj	7	12	19	6	5	11	13	17	30

It is estimated that the whole of the ruined wells in the Oomret Tuppa might be repaired for about 900 rupees; and those in the Bhaluj Tuppa for about 2,800 rupees.

Net Revenue for 6 successive Years.

6. The net Revenue paid to Government by these Tuppas during 6 successive years is shown below :—

Sumwut.		A. D.	Oomret. Rupees.	Bhaluj. Rupees.
1875	or	1818-19	26404¾	37899½
1876	„	1819-20	26231	39012¾
1877	„	1820-21	25703¼	38445¼
1878	„	1821-22	25146¾	38245¼
1879	„	1822-23	25577½	38461¼
1880	„	1823-24	24378½	33905

Average of the Net Revenue per Beega and Acre.

The average net Revenue, therefore, of Oomret, may be taken at 25,574 rupees, and of Bhaluj at 37,661 rupees; the village charges of the first average about 8,894 rupees annually, and of the second about 2,284 rupees; making the average gross Revenue of Oomret 32,468 rupees, and of Bhaluj 39,946 rupees. The proportion borne by the net Revenue, exclusive of village charges, to the beega and the acre, will be seen from the following average rates per beega and acre in rupees, and per acre in English money, calculating the rupee at 2*s.* 3*d.* :—

	On total Cultivated Land.	On total Arable Land.	On the Total Area.
Oomret.	Rs. q. r.	Rs. q. r.	Rs. q. r.
Per beega	2 3 48	2 1 65	2 0 19
Per acre	4 3 54	4 0 42	3 1 94
	£ s. d.	£ s. d.	£ s. d.
Per acre	0 10 11½	0 9 2½	0 7 9¾
Bhaluj.	Rs. q. r.	Rs. q. r.	Rs. q. r.
Per beega	3 0 43	2 1 62	2 0 41
Per acre	5 1 15	4 0 37	3 2 32
	£ s. d.	£ s. d.	£ s. d.
Per acre	0 11 10¾	0 9 2	0 8 0½

7. The population of the Oomret and Bhaluj Tuppas comprises the following number of each separate caste of people, according to the census taken by the Survey:— Population.

	Oomret.			Bhaluj.		
	Males.	Females.	Total.	Males.	Females.	Total.
Koonbees	949	705	1654	623	428	1051
Rajpoots	112	83	195	59	55	114
Kolees	358	294	652	345	287	632
Brahmuns	2077	2001	4078	70	58	128
Bhats	368	397	765	102	69	171
Buneeas	1095	979	2074	83	57	140
Bhaosar, or dyers ..	46	32	78	....	....	....
Kacheeas	228	221	449	4	3	7
Wuswaeeya	667	588	1255	234	199	433
Dhers, &c. (low castes)	244	197	441	221	199	420
Various other castes ..	176	161	337	90	87	177
Total Hindoos ..	6320	5658	11978	1831	1442	3273
Moosulmans	597	597	1194	487	438	925
Total	6917	6255	13172	2318	1880	4198
Slaves			59	.....		53
Grand Total			13231	.....		4251

The agricultural stock possessed by the above population, and the general resources of the Tuppas, are as follows:— Stock, and general Resources.

	Square Miles.	No. of Villages.	Houses.	Souls.	Horned Cattle.	Horses.	Sheep & Goats.	Ploughs.	Carts.	Net Revenue —the Mean of 6 Years.
	dcls.									Rs. q. r.
Oomret	11·46	5	3428	13231	3177	66	439	396½	471	25573 3 5
Bhaluj	16·43	11	1110	4251	3224	22	400	443½	321	37661 2 59

The proportion which the above will bear to the square mile and to the acre is thus shown:— Proportional Resources per Square Mile and per Acre.

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue—the Mean of 6 Years.		
						Rs.	q.	r.
Oomret.								
Per Mile...	299	1154	277	34½	41	2231	2	35
Per Acre....	⅓	1¾	⅖	1/19	1/16	3	1	94
Bhaluj.								
Per Mile....	67	258	196	27	19	2292	1	8
Per Acre....	1/77	⅖	⅓	1/75	1/53	3	2	32

The proportions shown for the Oomret Tuppa are drawn from an unfair calculation.

From the proportion of houses and of souls shown above for the Oomret Tuppa no fair comparison can be made with any other part; because the entire population of a densely peopled town, the majority of which derives subsistence from trade and manufactures, is included with that of only 4 small villages, and the average struck upon only a few square miles of ground immediately around it. It is impossible, however, to show this average in any more correct form, as the agricultural and trading portions of the town cannot be exactly discriminated. It is worthy of remark, that in the Oomret Tuppa the males and the females are more nearly equal in number than in the Bhaluj Tuppa, where the same extraordinary excess of the one over the other is found as has been repeatedly noticed in other Purgunnas. It may be remembered that a similar observation was made relative to the town of Nureead; and the inference from this appears to be, that the sexes are more equally proportioned in towns than in the smaller villages.

Survey Documents.

8. The Oomret and Bhaluj Tuppas were surveyed in the course of the year 1824 A. D., or 1880 Sumwut; and the documents framed for them correspond exactly with those already enumerated for the Government villages of the Nureead Purgunna. The Survey was performed under the superintendence of Captain Ovans, assisted by Lieutenants Keys and Reynolds.

J. CRUIKSHANK,
Revenue Surveyor, Guzerat.

Office of Revenue and Topographical Survey, Broach, 20th December 1826.

REPORT

ON THE

PITLAD PURGUNNA AND THE NEPAR TUPPA, IN THE KAIRA COLLECTORATE.

BY CAPT. J. CRUIKSHANK,

REVENUE SURVEYOR, GUZERAT.

Situation and Limits.

THE Pitlad Purgunna occupies a tract of country extending from the Muhee river on the East to the Cambay District on the West, and from the Muhee river on the South to the Nureead Purgunna on the North. Its exterior limits would form a compact and regular figure, were it not that the Nepar Tuppa of 19 villages lies in its centre, which was once a part of it, but was subsequently held by the Nuwab of Cambay, and, passing from him to the Peshwa and to the British, is now considered quite distinct.

Face of the Country.

The Muhee River.

2. The face of the country throughout the Pitlad Purgunna is level, and seldom diversified, even by those gentle sandy rises which occur in many parts of the Cherotur. The Muhee river, which forms in part the boundary of the Purgunna, and which bounds the Kaira Collectorate on the entire South, and the greater part of the Eastern side, is the third river of the Province of Guzerat, being inferior only to the Nerbudda and the Taptee. It discharges its waters by a wide mouth into the Gulf of Cambay, after a course of 350 miles, rising at Bopawur in Malwa, a place distant in a straight line from Cambay 160 miles. The banks, as they approach the sea, gradually diverge from each other, but in a most irregular manner, owing to the constant shifting of the course of the stream, which never, except during the highest floods, fills the entire breadth from bank to bank. This river is unfortunately not navigable, even at the distance of a very few miles from its mouth. It is affected by the spring tides as high up as Verakhandee, a distance of 50 miles; and from the peculiar form of the Gulf of Cambay, something resembling a funnel, the flood tide rushes up with a tremendous violence unknown in any other river: the ebb tide recedes also with great velocity.

Fords and Ferries of the Muhee.

The Kavee and Cambay Ferry.

3. At the mouth of the river and the head of the Gulf of Cambay there is a ferry crossing from Kavee, on the Southern side, to the town of Cambay on the Northern. In the fair season, and at the very lowest period of the neap tides, this passage may even be made on foot, but the tide rises and falls so rapidly that it is very hazardous to attempt it. The boat makes

the passage in one tide: if it should by accident be too late, and be left aground in mid-channel, it runs great risk of being swamped when the bore, as the flood tide is termed, rushes in. The boat is not generally in good order: it is calculated only for foot travellers, and each individual pays a quarter of a rupee for his passage.

The Dehwan Ford.

4. The Dehwan ford is at the distance of 13 miles from Cambay, and is much used, as being the straightest road between Broach and Kaira or Ahmedabad. From Karelee, or from Teethor on the Southern bank to Dehwan on the Northern, the distance is 5 miles. After descending the bank at Karelee, the road leads over a hard flat, only covered at the highest tides, for 3 miles, when the principal stream of the river is crossed, covering about a furlong, and at the highest of the neap tides only about middle deep: the road then crosses a broad sandy and sometimes muddy island, and, passing a minor stream, scarcely ankle deep, ascends the steep bank at the village of Dehwan. This is the present state of the river, but it is liable to change every year. This ford is only passable during the neap tides, and the fair season; and the overflow of the springs makes the bed so muddy as to prevent carts from crossing for six days after the new or full moon. At all other times the bed is hard and firm, and no difficulty will be found in crossing any description of carriage. There are two boats, capable of containing about 30 people, kept at Dehwan, for use during the monsoon, and any number of boats could be easily brought from Cambay if required, at two or three days' notice. In crossing this ford it is necessary to be provided with good guides, and to attempt a passage at any other than the time pointed out by the people on the bank, who are experienced in it, might be attended with fatal consequences, owing to the rapid rise and violence of the tide.

The Gajna Ford.

5. The next ford is at Gajna, 5 miles above Dehwan. The road from Pawura or Sooltanpoor on the South bank passes over a flat, partially flooded by the spring tides for $1\frac{1}{2}$ mile. The stream is on the North side, occupying less than half a mile in breadth at high water, and a quarter of a mile at low water. During the fair season, carts or other wheeled carriages can ford here at neap tides, and at the springs they are safely crossed without unloading betweeen canoes kept for the purpose. A boat also plies for the conveyance of baggage and passengers. This is considered a good ford, and it is not attended with danger from the rushing in of the tide. It is a convenient crossing place at the springs, when that by Dehwan is impracticable.

The Jauzpoor Ferry.

6. The next crossing place to be noticed is at Jauzpoor, a Gaekwar village on the South bank of the river, and distant 10 miles above Gajna. The river is never fordable here; but carts, heavily laden with tobacco, cotton, grain, &c. are crossed expeditiously and safely by means of two canoes, called "Koteeas," between which they are supported on poles passing from one to the other. The cattle swim alongside the canoes, and horses swim in the same manner. The stream is close under the South bank, and in breadth about a furlong and a half. The road afterwards is over hard sand, and then through hedged fields, to the high Northern bank, above which is the village of Sunkeear. This ferry belongs to the Gaekwar: a boat is kept for use during the monsoon, when the stream is too rapid for canoes.

The Oometa Ford.

7. Between Oometa on the right, and Seendrot, a Gaekwar village, on the left bank, 2 miles above Jauzpoor, there is a pretty good ford, which becomes passable about two months after the monsoon, but is always much

affected by the spring tides. This is the usual crossing place between the town of Baroda and Cambay.

Ford between Oometa and Fazulpoor.

8. Above Oometa there is no ford for wheeled carriages nearer than Fazulpoor, a Gaekwar village on the left bank, where the high road between Baroda and Kaira crosses to Wasud on the right bank. The road from Baroda approaches the river for a short distance through a ravine of easy descent: the stream during the fair season is about a furlong broad, and knee deep. The rest of the road to the opposite bank is over heavy sand, and then through a deep ravine, in general too narrow for two carts to pass each other, for three-quarters of a mile up to the village of Wasud. This ford is but little affected by the springs, and even during the monsoon is generally passable. Foot passengers can cross at almost every village above Oometa at neap tides, but not below Fuzulpoor during the springs.

Fords above Fazulpoor.

9. Above Fazulpoor the banks become higher, and the ravines more difficult, but the river may be more easily passed at any principal village. The bed first becomes rocky about Sundulpoor, of the Nureead Purgunna, but it is never so much so as to materially obstruct the passage.

The Purgunna is held jointly by the Company and the Gaekwar.

10. When the division of the province of Guzerat between the Gaekwar and the Peshwa was first arranged, no equivalent offered for so large and fine a Purgunna as the Pitlad; it was therefore set apart to be held conjointly, the villages being divided in nearly equal numbers, and a joint interest in the kusba or chief town retained by either authority. The Peshwa's share of the Purgunna devolved to the Honorable Company by right of conquest in 1817; but the town of Pitlad was subsequently given up entirely to the Gaekwar, and the Company's Kucheree is now held at Boorsud.

Superficial Area of the Company's entire portion.

11. The Honorable Company's portion of the Pitlad Purgunna consists, at present, of 88 inhabited villages, (exclusive of the Puryej Tuppa, containing 10 villages,) comprising an area of the following dimensions:—

	Miles. dcls.		
Square miles	238·57		
	Acres	r.	p.
Statute acres	152689	3	19
	Beegas	w.	ww.
Standard beegas	259811	7	8

Number and denomination of the Company's Villages.

Of these villages 77 are Rastee, or held immediately and entirely by Government, 3 are alienated, and 8 are Mehewassee. Among the Rastee villages there are 2, the lands of which are divided into separate parts, and each part is considered in the Revenue accounts as a separate village, although the inhabitants all reside upon the same site. In Napa there are two divisions, the wanta, and the tulput; in Bhetasee there are 3 divisions, the wanta, barueea, and tulput; so that these two villages are reckoned as 5: the tulput lands only are included in the area of the Rastee villages, the others, in conformity with the Kucheree arrangement, being thrown among the Mehewassee. The poora of Onklaoree, Rajoopoora, is also considered sometimes as a separate Mehewassee village, but as the Tullatee has included the lands attached to it in his kurda, it has not, in the Survey documents, been separated from Onklaoree.

The Revenue derived by the Company, compared with the total Area of their Villages, with the quantity of Land in cultiva-

12. The Honorable Company derive an annual net Revenue from the Rastee villages of the Pitlad Purgunna, amounting upon an average of six successive years to 4,16,544 rupees; the village and other charges have averaged annually 31,685 rupees, making up an average gross Revenue of 4,48,229 rupees. The total area of these villages appears by the Survey

tion, and with all that which is capable of cultivation.

to be 225,283 beegas, equal to 132,397 acres, of which 1,72,942 beegas or 101,637 acres were found to be actually under tillage; 24,046 beegas or 14,132 acres waste and neglected, although arable; and 28,294 beegas or 16,628 acres unproductive, and not capable of being turned to any agricultural account, either from the nature or situation of the ground. Taking the above gross Revenue as a fair average, it appears that each beega of land throughout the entire extent of these villages must pay upon an average $1\frac{3}{4}$ rupee, equal to $3\frac{1}{4}$ rupees per acre; if the assessment bore upon the cultivated land alone, the average rate would be $2\frac{1}{2}$ rupees per beega, or $4\frac{1}{4}$ rupees per acre; and if upon the arable land only, it would be $2\frac{1}{4}$ rupees per beega, or $3\frac{3}{4}$ rupees per acre. But this calculation supposes the whole of the lands to be available for the full assessment of Government. In reality, however, there is much land exempted, either wholly or partially. This

Average rate paid by the Alienated Lands taken singly, and by the Government Lands taken singly.

alienated land amounts, by the Tullatees' accounts, to 84,886 beegas, and the Revenue derived directly from it under the head of sulamees and suwadeeas is about 80,746 rupees, being an average of not quite 1 rupee per beega. After deducting this alienated land, there remains as the exclusive property of Government 81,186 beegas, the direct Revenue of which, excluding all veeras which may be considered as bearing equally upon the alienated and the Government lands, is about 3,06,435 rupees, or, on an

Payments of individual Villages.

average, $3\frac{3}{4}$ rupees per beega, or $6\frac{1}{4}$ rupees per acre. The individual Revenue paid by single villages varies from about 2,500 rupees to 12,000 rupees. Two villages, Borsud and Anund, pay upwards of 20,000 rupees, six villages between 10,000 and 20,000, and fifteen villages between 5,000 and 10,000. Only nine villages pay less than 1,000 rupees, and if the entire gross Revenue of the Purgunna be divided among the whole 77 villages, it shows an average to each of 5,800 rupees.

Estimate of the value of the total Gross Produce of all the Lands.

13. An estimate has been formed from the produce tables annexed to the remarks of each village, of the value of the total gross produce of the 77 Rastee villages of the Pitlad Purgunna, for a single season. These produce tables are in general too low, and this estimate might, it is supposed, be with great safety increased in a considerable proportion. The result shows a total of 13,62,161½ rupees. If the Government be rightly considered as entitled to take one-half the gross produce from the cultivator, its share would be 6,81,080$\frac{3}{4}$ rupees; but this supposes the whole of the lands to be available for full assessment. An allowance must, consequently, be made for those lands which are the property of private individuals, and exempt from the payment of the public Revenue. This allowance is technically termed "Nooksan," and is the difference between the amount now paid by the alienated lands, and that which they would pay were they assessed at precisely the same rates as the Government lands. The nooksan, here, is calculated in the Tullatees' accounts at 3,25,570$\frac{3}{4}$ rupees, the deduction of which leaves 3,55,509$\frac{3}{4}$ rupees as the amount which the Government assessment ought by this low account to be. But after every allowance has been made, this Purgunna may still be looked upon as highly assessed. The value of the tobacco produce alone, for a single year, is calculated to be about 2,44,500$\frac{3}{4}$ rupees, and that of the indigo about 22,500 rupees.

Mehewassee and Alienated Villages.

14. The annual payments made by the Mehewassee villages amount to 14,165 rupees, and their aggregate area according to the Survey is 30,194 beegas, or 17,745 acres. The alienated villages pay 118 rupees, and their area is 5,326 beegas, or 3,130 acres.

Alienated Lands in the Government Villages.

15. In addition to these villages, entirely alienated, the alienation of land in the Rastee villages of this Purgunna has been carried so far that

the Government tulput does not now comprise a moiety even of the arable land; more than 60,000 beegas are held upon the "Vechan" and "Guraneea" tenures, the whole of which is doubtless in strict justice liable to resumption. But, with the exception of about 10,000 beegas, this land is subject to the payment of dues to Government under the head of sulamees and suwadeeas, which are often of nearly equal amount with the rates fixed for the tulput lands. The chakreea lands, or those set apart for the maintenance of village servants and artizans, amount to not quite 10,000 beegas. The pusaeeta lands, or those held on pusaeeta grants, made originally to religious men or establishments, amount to about 15,500 beegas. The hureea and runwuteea lands, or those given as the price of blood to the families of those who lost their lives in defence of the village rights, or were accidentally slain or wounded within the boundary of it, are rated at 1,300 beegas. The wanta lands, held by Rajpoot Guraseeas, amount to nearly 8,000 beegas, and the wuzeefa lands, or those held on royal grants by Moosulmans, to 200 beegas.

Nooksan, or loss to Government by the Alienation of Land.

16. The nooksan, or loss which the alienation of land in this Purgunna occasions to the Government Revenue, has been estimated and explained above to be 3,25,570¾ rupees. But it is clearly ascertained that the possession of free land in numerous instances enables the cultivators of the tulput lands to pay such high rates as it would be otherwise wholly beyond their power to make good. And therefore the resumption of the whole or a part of these alienated lands by no means implies a consequent increase of Revenue, equivalent to the whole or to an exactly proportionate part of this nooksan. But this system of indirectly taxing alienated lands no doubt causes the general assessment of many villages to bear unequally upon the several classes of people, particularly in the beegotee villages, where no means are left to the village community of equally distributing the different descriptions of land, or of equally dividing among themselves the public burthens.

Condition and Population of the Villages.

17. The villages of the Pitlad Purgunna are generally of a very superior order, and most of them contain a large population of thriving and substantial cultivators. The town of Borsud is surrounded by a brick wall, built by the Mahrattas, which is now much in ruins, but there is a smaller kot or citadel within it still, in tolerable order. All the other villages are surrounded only with hedges, but of a very thick and luxuriant description. Some of them have small brick or mud forts, which in the present secure state of the country are neglected, and hastening rapidly to decay. The houses of the inhabitants are often of a spacious and substantial order, giving a great appearance of comfort and respectability to the villages, and residences of two stories in height are by no means uncommon. The united population of the Rastee villages amounts to 72,074 souls, being an average of 348 per square mile, a result which, considering that no town of any great size is included, appears to be immensely great. About a third part of this population consists of Koonbees, whose industry and agricultural skill constitute the real wealth of this valuable tract of country. About a twentieth part of the people only professes the Mahomedan religion, and of these a few only are heads of villages, or cultivators of respectable condition. Among the Hindoos the males are found to exceed the females in the proportion of 100 to 77, and among the Moosulmans in the proportion of 100 to 82.

Village Establishments.

18. Every village has its separate establishment of artizans, mechanics, and servants, for whose support certain portions of land are set apart, and allowed to pass rent-free under the head of chakreea, or service land.

Where the village is large, these establishments are often very complete, consisting of carpenters, blacksmiths, potters, tailors, washermen, leather-dressers, shoemakers, porters, scavengers, &c. At the head of the whole are the Patels, whose office is hereditary, not elective: when they are several in number the order of precedence is strictly maintained; and when any question upon this point arises, it too frequently leads to long and violent altercation. The duties of Patels in large villages involve considerable responsibility, and certainly very great trouble and inconvenience to themselves as cultivators, not being able to give the needful attention to their fields, when their presence is so often required at a distance from their homes. An allowance is generally made to the Patels, under the head of enam, and allowed to form a regular item in the account of the authorized village expenditure, but they frequently complain of this allowance being insufficient. The Burtuneeas, or, as they are more commonly called here, the Rawuneeas, who act as the village guard, are frequently composed of the worst description of Kolees, who themselves are the perpetrators, it is said, of the crimes which they are supported and kept for the express purpose of preventing. Complaints on this head are heard particularly at the villages upon or near the banks of the Muhee, and the remedy the people wish to be applied is the substitution of trustworthy Rajpoots for the Kolees at present employed. Whether the character of these Kolees be so bad as represented or not, it is certain that the peaceable inhabitants stand much in fear of them, and therefore, if on this account alone, they require to be checked, and brought to a better degree of subordination.

Allowing Kolees to act as Rawuneeas is supposed in many cases to be injurious.

Soil.

19. The extent of land attached to each village varies from 10,500 beegas, or 6,171 acres, to 650 beegas, or 382 acres; it is seldom above 5,000 beegas, or 2,938 acres. The soil is almost entirely of that light description termed goraroo, a tenth part of the arable lands only falling under the denomination of kaurda, or such as is of a black loamy nature, and fit for the cultivation of rice. But this goraroo land is of a very superior quality, approaching nearly to the nature of the fine mould which is termed marwa on the other side of the Muhee, and very different from the poor sandy lands which pass under the name of goraroo in the Purgunnas of the Ahmedabad Collectorate. Upon the western frontier the level of the country declines, and some of the villages in that quarter are liable to be injuriously inundated during seasons of heavy rain. To the repair and construction of bunds or dams, which form the banks of tanks, attention is here most urgently necessary; for the escape of the water is attended with ruinous effects to probably a large extent of country. Under every precaution, however, it is found that yearly damage is done to the crops by inundation, and the evil can only be effectually remedied by the digging of cuts in various directions for carrying off all the superfluous water which now lodges upon and destroys the land.

Injurious Inundation.

State of Husbandry.

20. The cultivated fields are in most parts enclosed with hedges, and adorned with numerous fruit-bearing trees of the mango, muhora, and raen class. A proportion of about 11 per cent. is artificially irrigated, and all the rest receives no other water than the natural fall during the monsoon, and can consequently bear only one crop in the course of the year. In almost every village wells are found in a ruinous condition, which are now wholly useless, but which might be repaired and rendered efficient at a cost which the enhanced profit to be derived from the land would soon repay. Cultivation, as regards its extent, has already reached to nearly its utmost limit, and increase of Revenue can therefore only now be expected from the

extension of irrigation, and the further growth of the superior kinds of produce.

Productions.

21. The productions of this Purgunna consist of the usual dry grain and pulse crops, bajeree, jowar, kodra, &c. &c.; of tobacco, indigo, sugar-cane, garden produce, and a very small quantity of opium. Bajeree and jowar, with the kuthol or pulse, are the staple crops, more than a lakh of beegas being found under this description of cultivation; nearly half a lakh more is absorbed in the culture of the minor kinds of dry grain; ten thousand beegas were found to be sown with rice, and between six and seven thousand with tobacco. The culture of indigo is carried on to the extent of nearly 3,000 beegas, but confined to only a few villages; of sugar-cane there are only 122 beegas.

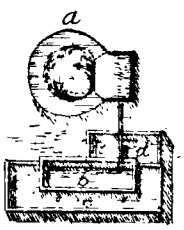
Tobacco.

22. The most valuable and important article of produce at present grown here is undoubtedly the tobacco. The tract where it is chiefly grown lies between Pitlad and Kaira, where the soil is moist, and of a peculiar nature, apparently exactly suited to this plant. The village of Anund, in particular, is famous for the produce of tobacco, and the following detailed account of its cultivation, taken from the people upon the spot, and extracted from the volume of remarks, may be considered valuable for its minuteness and accuracy. Tobacco is planted in the goraroo koowetur land, which must be well manured to receive it. The land must be ploughed eight, ten, or twelve times, and one beega requires 20, 25, or 30 cart loads of manure. The more manure is applied, and the more the land is stirred by the plough, the more plentiful will be the crop, and the better the tobacco. In one beega about 8,000 plants are set. When the tobacco is cut, a few of the stalks are left standing, and these send out shoots, which flower, and produce the seed; but it is not necessary to water these stalks, or to take any trouble about them, and usually only about 20 are left for seed in each beega. This seed is sown after the first fall of rain in July, on a small piece of ground well ploughed and manured to receive it, and made up into little beds like garden ground; and if rain does not fall in due time, it must be watered. The young plants are ready to be transplanted into the fields in a month or a month and a half. If they are good and plentiful, one beega of them will serve to plant 40 beegas, or if inferior 20 beegas. When these plants are sold by one cultivator to another, they bring 1, 2, and sometimes 3 rupees, according to the demand, for as many as will plant one beega of land. When the land is quite pulverized, and ready to receive the plants, a large rake (jeslee), having three or four wooden teeth at a distance of 1 hath and 3 tusoos (nearly 2 feet) from each other, is dragged over the field lengthways and then crossways, so as to divide it into squares, and wherever these lines intersect each other there the plants are set. This instrument also answers to eradicate the weeds out of the soil. The planting takes place during the intervals of fair weather within the last fifteen days of August and the first fifteen days of September, and it requires the land to be moist. If no rain fall for a month or so, furrows must be made with the plough, and water let into them. The young plants, when set, must be watered two or three times, and if the sun be powerful they must be shaded until they take root; should rain fall every fifteen or twenty days afterwards, water is not required, but if a whole month intervenes without a shower, the tobacco must be irrigated. After the monsoon, it requires watering every ten or twelve days, and if the water be a little salt, it is preferable to the perfectly sweet water. There are four kinds of tobacco, tulubdee, khandeshee, ilaeechee, and gandeeoo; but only two of there are

produced here, viz. tulubdee and khandeshee, of which the khandeshee has a large thick leaf, and that of the tulubdee is thin and small. The best and worst sorts of tobacco are not the produce of particular fields, but depend on the labour, care and skill of the cultivator, and in some degree on the quality of the water. The khandeshee tobacco also weighs more than the tulubdee. The tobacco takes five and five and a half months to ripen. It is particularly liable to two misfortunes: one of these is the "Heem" or frost, in the "Seealoo" or cold season, and the other is the rain which sometimes falls about the Hoolee, when it is cut and lying out in the fields to dry. The tobacco is cut during the last fifteen days of February, and during the first fifteen days of March. After the Dewalee (end of October) it is necessary to go through the fields from time to time to cut out the sprouts, which the plant throws out for flowers, as, unless these are removed, the leaves lose the sap necessary to give them their proper flavor. When the tobacco is ripe, it is classed into "Kaleea" and "Jurdo." That which is thought good enough for kaleea is cut down stalk and all, and placed in the field in rows to dry. It remains thus ten or twelve days, and is then tied up in the early morning, while moist with dew, and carried home, and made up there into bundles with as much expedition as possible: it is the labour of five or six days to tie up the produce of one beega, and that of ten days more to have the bundles properly turned and dried, and made fit for sale. It is an object to sell the tobacco as soon as possible, as it loses weight by keeping, and requires much looking after. The leaves of the plants that are looked upon as jurdo are cut from the stalk, and allowed to dry on the ground for twelve or fifteen days, and are then brought home by little and little. The large leaves are then separated from the smaller ones, and the whole is made up into bundles, having layers of large and small leaves alternately. The kaleea tobacco is used for the hooka and for snuff. The jurdo is used for chewing and for beerees. The people of the surrounding villages of the Cherotur, and also dealers from Dubhooee, Godra, Morasa, &c. come here to purchase the kaleea tobacco, and it is also carried to different places by the cultivators themselves for sale. The jurdo tobacco is chiefly disposed of to Charuns, and dealers from Malwa.

Indigo.

23. The extension of indigo cultivation is a point well worthy of serious attention. Many parts of the Province of Guzerat were formerly celebrated for their indigo: the manufacture of the dye was carried on to a very great extent, and large quantities of it exported to foreign parts. About fifty years ago, under the operation of many complicated causes, the price of indigo fell so low as to render its culture no longer profitable, and the attention of the agriculturists was turned to other crops, in particular to rice, the introduction of which was, in a great measure, owing to the decline of indigo. The price of indigo has now again risen so high, and the demand for it appears to be so great, as to give room, notwithstanding the superior skill and capital of the European planters in Bengal, for the revival of the culture of the plant on an extensive scale with a prospect of great advantage. There is some prejudice against it, as there is also against tobacco, but these prejudices always give way when the Koonbees see any direct and palpable advantage before them. The want of vats for the extraction of the dye is the first and principal want to be supplied. A set of vats will cost about 275 rupees, and to meet this expense a remission of Revenue might be made, similar to the remissions granted for the construction of new wells. A premium might also be offered with a view to



a _ Well from which the water is conveyed on a raised Channel.

b _ Vat where the leaves are first steeped.

c _ Vat lower than the first vat, into which the water is drawn by several cocks, and where the liquor is worked up with sticks.

d _ Vat to which the water is drawn off from the second vat, and from which, after standing a short time to allow any remaining sediment to settle, it is allowed to finally drain off.

e _ Vat for dregs, &c.

the more immediate encouragement of this kind of cultivation, either by imposing a lighter than ordinary beegotee for a certain period, or a direct honorary reward to him who cultivates most, and most successfully. The part of the country in which the Pitlad Purgunna is situated is peculiarly well calculated for an experiment of this kind, from its excellent soil, from the industry and skill of the people, and its proximity to the sea-port of Cambay, whence the produce could be so easily exported.

Account of the Cultivation and Manufacture of Indigo.

24. The gulee, or indigo plant, is cultivated in land of goraroo soil, and the field intended for it may* be manured with 10 cart loads per beega, and ploughed four several times during the first fall of rain. The seed is sown in drills, with the turphun or drill plough, 35 seers being sufficient to sow each beega. The plants are fit for cutting in September, and great care must be taken, while gathering, that the leaves are not exposed to wet, as otherwise they become of little or no value. The dye is extracted, sometimes from the green leaves and sometimes from the dry; if green, the plants should be conveyed away from the fields early in the morning, and deposited in the vats prepared for the extraction of the dye. The vat is then filled with water, and heavy weights placed across the top to keep the plants well down. During the night they ferment, and in the morning the water is drawn off into a second vat, where it is well worked up with large sticks until it is adjudged by experienced persons upon the watch to be of a sufficiently deep colour. In this state the liquor is allowed to stand perfectly quiet till the next day, when the water is drawn off into a third vat, and the sediment remaining is removed and dried in small detached portions, after which the process is completed, and the indigo is fit for sale. The annexed plan shows, perhaps, more clearly than a description can, the way in which vats for making indigo are usually constructed in this country.

The sediment when first removed is tied up tightly in bags, and suspended from the branches of trees to allow still more of the water to drain off; it is then laid to dry under a small shed. The refuse indigo dregs, and also the plants, make very good manure: an old indigo field is never ploughed up the succeeding season until the rain has fallen, as the roots and cut stalks, if allowed to rot in the ground, are very beneficial to it. A beega of the indigo plant is expected to yield upon an average 28 seers (equal to about as many pounds avoirdupois) of the prepared dye, the value of which is about 42 rupees, and in addition to this, the plants left for seed will yield about 2 rupees, making the value of the whole produce of a beega about 44 rupees: the expenses of cultivation are calculated in all at 30 rupees, and the beegotee, or Government rent, at 7 rupees, leaving a profit to the grower of 7 rupees.

Collection of the public Revenue.

25. The public Revenue is throughout the whole of the Pitlad Purgunna collected in money, the share of the produce of the soil which is the right of the Government being by long and acknowledged usage commuted for a cash payment. The collection of the Revenue is intimately connected with the constitution and municipal management, which are found to vary in almost every village, but the whole may be reduced to three principal classes—the nurwa villages, the khatabundee, and the simple beegotee.

The Nurwa System.

26. The nurwa system has been explained in the Nureead Report, but is again repeated here, in order to bring the three classes into one distinct view.

* Manure is not essential, though sometimes used.

27. The lands of nurwa villages are divided into certain large divisions (from 2 to 7), called bhags or patees; and these are subdivided into smaller parcels (from 10 to 200), called rupees, anas, pugrees, or pans; and these, again, into fractional parts. The superior Bhagdars, or holders of sharers, are collectively responsible for all demands of public Revenue; and the inferior Bhagdars are collectively responsible for that portion of the Revenue which is assigned to their bhag. The shares or divisions, both major and minor, are sometimes of equal amount, and sometimes of unequal, but always in a known and recognized proportion, so that the Revenue due by the whole village may be exactly apportioned among them. It seldom happens that the whole of the lands is included in the nurwa division: there is always a large quantity of what is termed muzmoon land, the signification of the word muzmoon being the direct contrary to nurwa, that is all land not nurwa is necessarily muzmoon. This land is sometimes divided in equal proportions among the Nurwadars, who are thereby rendered responsible for it, and at other times it is let out yearly to any cultivator that will take it, by the Tullatee of the village. It is also generally found that many of the shares, through the emigration, bankruptcy, or death without heirs of the shareholders, have lapsed and fallen in. For these, according to the true spirit of the nurwa system, the remaining Bhagdars are responsible; but in the present impaired state of the nurwas they are not always made so, the lapsed shares being occasionally leased out in conjunction with the muzmoon, and brought to account separately from the nurwa. The phala or quota to be paid by each share is either fixed or varying: when it is fixed, the rents of the muzmoon lands, or of the broken shares, constitute the fluctuating part of the Revenue; when it varies, the whole Revenue of the village being settled, the collections are first made from the muzmoon lands, from the alienated lands, the veeras, and from every source except the nurwa, and placed to account; after which the remaining balance is divided in equal proportions among the shares. The nurwa is considered strictly as property: it is saleable from one person to another, and inherited subject to all the rules and customs by which the inheritance of any other kind of property is guided. Sons inherit equally, and hence the almost incredible subdivisions of the nurwa; but the holder of the minutest portion claims all the privileges of a Pateedar, and takes his place in the village concerns before all other ordinary members of the community. The alienated nurwa lands are those which the proprietors have sold on their own responsibility quite independent of the Government, to which they still continue answerable for the full original rent. But if bhags be broken up, it generally happens that the holders of such lands have held them for so long a period as to render a recognition of their claims necessary. Much land held in this manner has been resumed, burthened only with a santh, or annuity to the former holders; and this santh, if the bhags be again restored, must be paid by the Bhagdar within whose lot the lands saddled with it happen to be; and this is what is termed nurwa santhela land. The gubhan, or village site, is sometimes divided among the nurwas, and sometimes not.

28. Under the nurwa system the Government is supposed to have nothing to do directly with the land: it makes its demand in money, which is divided among the village community, and made good; and, beyond an examination of the general state of the cultivation, Government has no right to interfere in any way with the division of the land among the cultivators, or to inquire how much or how little land is held by each individual. This is essentially and entirely the province of the village community. It

is thus that the divisions of the nurwa are almost invariably made in rupees, and the component parts of a rupee, and not in beegas, or the component parts of a beega, or in any other measure of land. It is natural that the original holders of the nurwa—those who first divided the responsibility of the public Revenue among them—should reserve to themselves and posterity certain privileges, rights of precedence, and so forth, in all village concerns, above all future or chance comers, just as free men of a corporation have rights over other inhabitants of the same ward or town; and from this doubtless arises the broadly drawn distinction between Pateedars (or sharers) and ordinary Koonbees.

The Khatabundee System.

29. The khatabundee is only a modified description of the nurwa system, and were the whole lands of a village khatabundee it would amount to much the same thing; but it has undergone more change than the nurwa, and probably never existed in equal perfection. The real khatabundee system consists in this—the payment of a certain fixed sum upon a certain fixed portion of land, without reference to the crop grown, or the description of soil; the payment being the same whether the whole khata be cultivated, or whether a part of it be waste. Originally, perhaps, the entire lands of villages may have been divided into khatas, each held as a distinct estate, and paying annually one unvarying amount; but at the present day the system is only to be found under a variety of modifications, and never in its original and perfect form. In the accounts of the different modes of assessment furnished by Tullatees, there is much confusion; for in their records they are accustomed to reduce every payment to an average rate per beega, and to insert it as a simple beegotee. Thus, if a khata has to make good a certain sum, and is held by many different parties, they state the several unequal portions held by each man as so many separate khatas, paying a certain beegotee, the rate of which they obtain by dividing the whole quantity of khata land by its gross payment. But the best and most correct idea of the khata system may be formed by supposing the holders of a certain portion of land to be obliged to make good a certain sum of money annually, whether the land be cultivated or waste, irrigated or dry, producing the best or the worst kinds of crop. This, then, is a fixed sum, to be paid to Government independent of any contingency of season: it is not intended to be the real taxable value of the land, but greatly beyond it, so as to be a security for the cultivation and Revenue of all the other lands. Those who contribute to make it good may cultivate as much other land as they can, at the payment of only a very light rent, and if the holders of the khata are not of themselves sufficient to cultivate the whole lands of a village, other cultivators are admitted, who are required to pay such ordinary beegotees as may be agreed between themselves and the village officers. These agreements are termed gunwuts, and the land cultivated under such agreements is termed gunwuteea. Gunwuts are either "Chaloo" or "Phirta": the chaloo gunwuts are agreements for fields which always pay the same sum, although the occupant may change every season, and the phirta gunwuts are those where both the rate and the occupant vary yearly. The sum to be made good by the khata is generally so very great that the holder of it, were it held by a single man, would be obliged to cultivate a very large quantity of other lightly assessed land, in order to bring the whole down to a moderate average; but, in fact, no farmers upon so large a scale are to be found: the khata is parcelled out among a number of men, each of whom makes good his proportion only, but still enjoys all the rights and privileges of a Khatadar. The payment

required under the head of veeras or taxes is sometimes mixed up and conjoined with that of the khata, the people apparently preferring this mode to that of taxes levied upon houses or upon ploughs; for the number of houses or of ploughs may increase, and so the taxes be increased also, but the khatas are fixed, and consequently no pretext offered for increasing the taxes. It is found in some khata villages that distinctions of soil and of crop have been introduced, and the beegotee regulated accordingly; but this is an innovation, which, however, has this good effect, that it makes the cultivator of a certain portion of good land answerable, also, for a certain portion of bad land, and so prevents any monopoly of the good land in the hands of the principal cultivators, and the cultivation, or, at least, the payment, of the bad land, is in a measure secured. There is a kind of khata, not found here, but existing in other parts, regulated by the ploughs; but this, if examined, will be found to be much the same as the above described, excepting that the extent of the khata is defined by the number of bullocks required to plough it, instead of by its actual contents. It would be the same thing to say a khata of 25 beegas, as a khata of 1 plough, were 25 beegas the quantity of land which, by the practice of the country, 1 pair of oxen is known to be able to plough.

The simple Beegotee System.

30. The third class of villages are those where the collections are made by beegotee—that is every cultivator pays a certain sum for every beega of land he cultivates, and, consequently, the Revenue is in exact proportion to the quantity of land under actual tillage. The beegotee rates are fixed in six classes, viz. upon the uwul, doyum, and soyum irrigated lands, and upon the uwul, doyum, and soyum dry lands; but, in addition to these divisions, the superior kinds of produce are considered extra, and bear beegotees rising in proportion to their value. The nurwa and khata assessment is upon the land, the simple beegotee is upon the crop: the divisions of uwul, doyum, and soyum are defined, not by the real intrinsic nature of the soil, but by the localities of the field, such as its vicinity to the village, its height, liability to injury from cattle trespassing, or other advantages or disadvantages of its particular situation; and any other than the ordinary crop is rated separately. In such beegotee villages all the original constitution and form of village government is completely lost; the Patel has little to regard beyond his own immediate interest, and he loses the weight and consideration in the country to which he would be entitled as head of his little republic. Almost all the villages of the Ahmedabad Collectorate are beegotee villages, and they fall very far short of those of the Kaira Collectorate in both private and public wealth, as well as also in the character and respectability of the inhabitants. But there other causes which have operated to the depression of the Ahmedabad villages: that depression was the cause, not the result, of the breaking up of the nurwas; and as the people in their impoverished circumstances could not be willing or able to undergo any responsibility, the beegotee system, if well managed, is best suited to their present condition.

Analysis of the constitution of Anund, a Nurwa Village, and of Borsud, a Khatabundee Village.

31. An analysis of the constitution of Anund, a nurwa village, and of Borsud, a khatabundee village, will explain these systems more particularly. The minuter details of the assessment of these two villages will be found at length in the volume of remarks.

Anund.

32. The village of Anund is divided into two doree bhags, or principal shares, held by Hureedas Seeoodas and Nurseedas Bhaela: each of these should be responsible for 50 out of every 100 rupees assessed as the Government Revenue upon the village, and each is subdivided into smaller divisions,

which should be respectively responsible for a minor proportion of the Revenue. But at present the Nurwadars are held responsible only for those shares which are chulta or perfect, the responsibility of the remaining Nurwadars for the purela or fallen shares being allowed to cease so long as any of them remain in a lapsed state. In calculating the minor shares, the rupee is divided into quarters, junadees and badams, 48 badams being equal to 1 junadee, and 12 junadees to 1 quarter.

33. The first of the 2 doree bhags, originally responsible for 50 rupees, and divided into 3 minor parts, each responsible for 16 rupees, 2 quarters, and 8 junadees, now stands as follows :—

1*st*, The bhag of Hureedas Seeoodas contains—

	Rs.	Qrs.	Junadees.	Badams.
Chulta, or perfect shares, responsible for ..	42	2	8	$2\frac{1}{2}$
Purela, or lapsed shares, formerly responsible for	7	1	3	$45\frac{1}{2}$
Total	50	0	0	0

This bhag is subdivided into 3 shares, viz :—

The share of Patel Kesoordas Kandas and Jorabhaee Kandas contains—

	Rs.	Qrs.	Junadees.	Badams.
Chulta shares, responsible for	15	2	0	$42\frac{1}{2}$
Purela „ „	1	0	7	$5\frac{1}{2}$
Total	16	2	8	0

The share of Patel Hansjee and Tuljadas Juwereedas contains—

	Rs.	Qrs.	Junadees.	Badams.
Chulta shares, responsible for	14	1	8	$24\frac{1}{2}$
Purela „ „	2	0	11	$23\frac{1}{2}$
Total	16	2	8	0

The share of Patel Nurotum Kuroojee and Raechund Eswurdas contains—

	Rs.	Qrs.	Junadees.	Badams.
Chulta shares, responsible for	12	2	10	$31\frac{1}{4}$
Purela „ „	3	3	9	$16\frac{3}{4}$
Total	16	2	8	0

The second of the two doree bhags, originally responsible for 50 rupees, and divided into 2 equal parts of 25 rupees each, now stands as follows :—

2*nd*, The bhag of Nurseedas Bhaela contains—

	Rs.	Qrs.	Junadees.	Badams
Chulta shares, responsible for	27	2	8	$7\frac{3}{4}$
Purela „ „	22	1	3	$40\frac{1}{4}$
Total ..	50	0	0	0

This is subdivided into 2 shares, viz :—

The share of Patels Eswurdas Rewadas, and Dadabhaee Purvoodas and Sukeedas Dadabhaee conjointly contains—

	Rs.	Qrs.	Junadees.	Badams.
Chulta shares, responsible for	12	3	2	$21\frac{1}{2}$
Purela „ „	12	0	9	$26\frac{1}{2}$
Total	25	0	0	0

The share of Patels Jesung Wurujbhaee, and Jogeedas Bapoojee and Hureebhaee Raejee contains—

	Rs.	Qrs.	Junadees.	Badams.
Chulta shares, responsible for	14	3	5	$34\frac{1}{4}$
Purela „ „	10	0	6	$13\frac{3}{4}$
Total	25	0	0	0

The total number of chulta or perfect shares, therefore, in the two bhags together, bears the responsibility of 70 rupees, 1 quarter, 4 junadees, and $10\frac{1}{4}$ badams; the remaining 29 rupees, 2 quarters, 7 junadees, and $37\frac{3}{4}$ badams being the amount formerly borne by the purela or lapsed shares. The original division, it will be observed, was exactly equal, each owner being responsible for an exact third in the first bhag, and an exact half in the second.

34. The nurwa lands amount in all to 5,861 beegas and 19 wusas, made up as follows:—

	Beegas	w.	ww.
Government nurwa land.....	4237	18	10
Vechaneea sulameea	1321	17	10
Guraneea nukra	195	0	0
Pusaeeta nukra	90	3	0
Vechaneea nukra.....	17	0	0
Total..	5861	19	0

This quantity of land is divided into 100 shares, (answering to 100 rupees, each share being responsible for the hundreth part of the whole Revenue,) being an average of 58 beegas, 12 wusas, and $7\frac{3}{4}$ wiswusas to each; but some shares may contain a few wusas of land more or less. The whole of the chulta or perfect shares contain 4,114 beegas and 9 wusas; the purela or lapsed shares contain 1,747 beegas 10 wusas.

35. Each chulta or perfect share bears an annual phala or quota of 250 rupees. The lands of the purela or broken shares are leased out by the Patels and Tullatee, and brought separately to the account of Government.

36. The usual rates at which the lands of the broken shares are cultivated are as follows:—

Uwul goraroo, from	8	to	11	rupees	per beega.
Doyum	„ 3	„	5	„	„
Soyum	„ $0\frac{3}{4}$	„	2	„	„
Kaurda, or rice ground			2	„	„

A space of about 70 beegas, a part of the lapsed shares, is held by ten Koonbee families, who make good the fixed sum of $562\frac{1}{2}$ rupees yearly.

37. The Nurwadars underlet the best irrigated lands of the perfect shares at 12 rupees per beega, and the inferior land at the same rates as those of the lapsed shares: they allow waste land newly ploughed up to be exempt from any payment during the first and second seasons of cultivation. The holders of alienated nurwa lands pay a sulamee to the respective Nurwadars of 1 to $\frac{1}{2}$ rupee per beega. The trees in the lands of the perfect shares are the entire property of the Nurwadars, but a fourth part of the produce of those in the broken shares is taken by Government: the old and decayed trees, also, in the broken shares, when cut down, are disposed of on account of Government. The village site is entirely nurwa, and the Nurwadars collect "Bhara," or house-rent, from the inhabitants, to the amount of 1,650 rupees, the whole of which is carried to their own account as veras comprised in the nurwa, and these appear to be levied almost entirely on the agricultural classes. If a cultivator makes use of the water of a well belonging to a lapsed share, he pays for so doing 1 or $1\frac{1}{2}$ rupee per beega, under the head of "Peeawa."

38. The muzmoon lands consist entirely of alienations held by various classes, and paying from $\frac{3}{4}$ to $1\frac{3}{4}$ rupee as sulamee directly to Government.

The muzmoon veeras, or taxes direct to Government independent of the nurwa, amount to 283 rupees, levied as follows :—

Four houses of Koonbees pay 44 rupees.
Eight houses of Buneeas pay 38½ rupees.
Four houses of Goldsmiths pay 9½ rupees.
One house of Sweetmeat-makers pays 6 rupees.
Two houses of Blacksmiths pay 10 rupees.
Five houses of Graziers pay 31 rupees.
Two houses of Washermen pay 10 rupees.
Two houses of Boras, shopkeepers, pay 13 rupees.
One house of Rajpoots pays 4½ rupees.
One house of Koomars pays 4 rupees.
Eight houses of Dhers pay 8 rupees.
The Buneeas altogether pay an oodhur veera of 27½ rupees.
The Boras altogether pay an oodhur veera of 25 rupees.
The Dhers altogether pay an oodhur veera of 24 rupees.
The Chamureeas altogether pay an oodhur veera of 28 rupees.

Borsud.

39. Borsud is managed and assessed upon the khatabundee system. The khatabundee lands, or those upon which the burthen of the assessment is laid, amount to about 500 beegas, divided into 145 khatas or estates held entirely by Koonbee cultivators. The assessment of each khata is distinct and unequal: it is levied under two heads, viz. a beegotee, varying from 20 to 50 rupees per beega, and a veera or gross payment, varying from 5 to 83 rupees for an entire khata. This veera is termed a hul or plough veera, as it is calculated according to the number of ploughs which the holder of the khata employs in cultivation; thus the Khatadar who uses 5 ploughs, will, perhaps, pay the gross sum of 83 rupees under this head, while the Khatadar who uses but one plough may be rated at only 5 rupees. The veeras amount to 3,230 rupees, and the beegotee payments to 6,000 rupees; making up a total assessment upon the khatas of 9,230 rupees; being an average rate of 18½ rupees per beega. Some of the khatas are held oodhur, or subject to the annual payment of one unvarying sum: in every instance the assessment must be made good whether the land be cultivated or not; and, on the other hand, no higher payment can be demanded in case of any improvement by building a well or other means.

40. All the other Government lands of the village are let out on gunwuts, or separate agreements, at the rate of 6 rupees per beega for land of the uwul or best description, 4 rupees per beega for land of the doyum or middling description, and 3 to to 2 rupees per beega for land of the soyum or inferior description. The Pateedars, who are here Brahmuns, and distinct from the Koonbees, who cultivate the khatas, hold land upon chaloo gunwut, or continuing rent, at the same rate, year after year, of 6 rupees per beega, without any reference whatever to the nature of the soil.

41. There is a certain portion of land, termed santhela, which has been resumed by Government, and on account of which the former holders, who are Desaees of Pitlad, receive a santh or fixed annuity of 275 rupees. This santhela land is separately assessed: if cultivated by the Brahmun Pateedars it pays 6 rupees per beega, the same rate as is paid on account of the Government lands held by the same class; but the Koonbees hold it on gunwuts at the rate of 8 to 6 rupees for the uwul kind, 5 to 4 for the doyum, and 3 for the soyum.

42. The alienated lands held by the Kusbatees, under the head of vechaneea, pay a sulamee of Rs. 3½ to Rs. 2-3-75 per beega. Vechaneea

lands held by Kolees pay 4 rupees per beega; and those held by any other class pay from 4 to 1½ rupee per beega. The sulamee is paid upon the cultivated land only, but has no reference to the soil or species of crop grown. Alienated lands, watered from Government wells, pay an additional sulamee of 1½ rupee per beege.

43. During the dry season of Sumwut 1881 (A. D. 1825), the beds of several tanks were cultivated, and paid an assessment of Rs. 22-3-18¾. There is a flower garden on the North side of the town, considered as exempt from any payment.

44. The veeras, or taxes upon others than the actual cultivators, are generally levied in gross sums upon occupations. They are detailed here, being considered a good example of those taxes which bear reference rather to manufacturing towns than the agricultural villages of the Purgunna.

Kusub Veeras, or Taxes upon Castes, Trades, and Occupations not Agricultural, in the Town of Borsud.

45	Families of	Weavers of coarse cloths pay altogether	498½	rupees.
75	„	Marwaree Buneeas, traders in cloths and grain, pay the gross sum of	207¾	„
The Village		Buneeas, shopkeepers	70¼	„
20	Families of	Sootureea Buneeas, traders in cotton thread.	15	„
20	„	Nestee Buneeas, grain sellers	24	„
4	„	Loteea Boras, oilmen	45½	„
1	„	Bora, ironmonger	6	„
20	„	Cloth printers	128¾	„
30	„	Rice cleaners	103½	„
22	„	Carpenters	21½	„
12	„	Blacksmiths	14¾	„
10	„	Washermen	50	„
10	„	Milkmen.....	27	„
2	„	Pot-makers (large)	6	„
7	„	Pot-makers (small).....	45	„
2	„	Cutlers	5	„
40	„	Brick-makers	32½	„
5	„	Gardeners	23	„
15	„	Goldsmiths	15	„
20	„	Graziers	171	„
5	„	Butchers	40	„
35	„	Greengrocers	180	„
8	„	Tailors	72	„
2	„	Dyers	22½	„
40	„	Oil-pressers.....	300	„
6	„	Labourers	21½	„
3	„	Indigo dyers	40	„
12	„	Shoemakers.....	70	„
2	„	Choorgurs, makers of bangles	40	„
4	„	Sweetmeat-makers	49	„
6	„	Rawuleeas and Jogees, tape-makers	40	„
12	„	Dhers	32	„
16	„	Leather Dressers.....	257	„

The Villages classed with reference to their Constitution and mode of Assessment.

45. The number of Rastee or Government villages in the Pitlad Purgunna is 77, which, in respect to their constitution and mode of assessment may be thus divided :—

33 Villages are Nurwa.

11 Villages are Khatabundee.

23 Villages are Beegoteea, or paying fixed rates per beega.

8 Villages are Gunwuteea, or paying at variable rates per beega, according to separate agreements made with each cultivator.

2 Villages are Oochuk, or paying fixed sums for each field, without reference to its size or quality.

Of the khatabundee villages, there are four which pay fixed sums on fixed khatas, viz :—

In Onklao each khata of 17 beegas pays 150 rupees.
In Kuthol „ „ 16½ „ „ 444 „
In Bunejra each khata of 25 to 31 beegas pays 121 to 137 rupees.
In Kaloo „ „ 2 to 10 „ „ 5 to 19¼ „

In 4 other khatabundee villages, the payment made by each khata is not now considered an individual sum, though originally it probably was so, but a beegotee rate, as follows :—

In Borsud, khatas of 1 to 5 beegas each pay 20 to 50 rupees per beega, and all other land pays 6 rupees per beega.

In Aras, khatas of ¼ to 2 beegas each pay 33 rupees per beega, and all other land pays 5 rupees.

In Wugasee, khata land pays 17 to 7¼ rupees per beega.
In Deweel „ „ 5 to 1¾ „ „

In the 3 remaining khatabundee villages, Wurod, Maloo, and Dawulpoora, the distinctions of soil and of crop have been introduced, koowetur or irrigated land paying from 6 to 10 rupees per beega; pokhreea or dry land of the uwul class from 5 to 10 rupees, of the doyum class from 1¾ to 5 rupees, and of the soyum from 1 to 2¾ rupees per beega. In these 11 khatabundee villages, veeras upon the cultivating classes are levied in only 4 villages, viz :—

In Wurod, a veera of 12 to 1 rupee on each khata.
In Dawulpoora „ 35 to 10 „ „ „
In Borsud „ 83 to 5 „ „ „
In Kaloo „ 26¼ to 1½ „ „ house.

But it must not be supposed that the highest rate of these veeras is paid in addition to the high payments per khata shown above. The veera and the khata payment may rather be considered as bearing an inverse ratio to each other, so that the total sum to be made good by each khata becomes more equal than it otherwise appears to be. There is a veera also in Aras, but it is mixed up with the khata beegotee payment in rather an intricate manner. The Pateedars there have arranged to pay on 41¼ beegas, the original established khata, which is now subdivided into very small portions, in addition to the regular beegotee of 5 rupees, a sum equal to 28 rupees per beega additional. This places a limit to taxation, and their houses or ploughs may be increased indefinitely; and it also secures them from scrutiny into their domestic concerns, of which they are jealous.

46. In the 23 pure beegotee villages the rates of payment per beega are as below :—

On koowetur land from 37 to 4 rupees per beega.
On pokhreea (uwul) 18 to 2 „ „
„ (doyum) 12 to 1¼ „ „
„ (soyum) 6 to 1 „ „

In 2 villages no distinction is made between the three classes of soil, all paying alike from 10 to $\frac{3}{4}$ rupee per beega.

In 6 villages no distinction is made between goraroo and kaurda land, both paying alike from 18 to $\frac{1}{2}$ rupee per beega.

In 3 villages the produce of kaurda land pays in kind, half being the Government share.

In 2 villages kaurda produce pays a distinct beegotee, varying from 10 to 2 rupees per beega.

Veeras upon the cultivating classes are found in 4 of the beegoteea villages, viz:—

In Verakhandee	a veera of	$25\frac{1}{2}$	to	3	rupees per	house of	Koonbees.
„	„	8	to	1	rupee	„	Rajpoots.
„	„	$14\frac{1}{4}$	to	1	„	„	Kolees.
„	„	10	to	1	„	„	Seepahees.
In Lamboel	„	50	to	$2\frac{1}{4}$	rupees per plough.		
In Napa	„	$13\frac{1}{4}$	to	$2\frac{1}{2}$	„	„	
In Kutnal	„	30	to	4	„	per house.	

47. Among the 8 gunwuteea villages there are 6 in which the gunwuts are made "Chaloo," or at the same rate for a series of years; and in 2 villages they are made "Phirta," or varying annually. In one of these 8 villages (Asodur) there is a veera of 35 to 5 rupees per Koonbee's house, and 14 to 1 rupee per Kolee's house.

48. The 2 oochuk villages are Wutra and Juntral. This does not appear to be any organised system of assessment, but a loose method of collection, which should as soon as possible be superseded.

Injurious result of the measures pursued on the first accession of the Company's authority.

49. Very general complaints are made throughout this Purgunna of the precipitate measures which were too frequently adopted, on the first accession of the Company's authority, with a view to bring out the supposed concealed resources of the villages. The system of letting villages by auction to the highest bidders, of farming them to strangers with no other interest in them than the temporary one afforded by the contract, has been found by experience productive of great oppression to the Ryuts; of individual loss to the farmers; and of an ultimate decrease of Revenue to Government. No single instance has yet been met with of a farmer of this class expending capital upon the improvement or encouragement of agriculture: these men invariably consider their lease as a bargain, of which they must make the most they can during the short period for which it is given. The farming out the nurwa villages overturns at once all the ancient institutions and customs of the people, supersedes the authority of the Patels, and is a clear infringement upon their just rights. The Revenue operations of 1819 broke up the nurwas in many villages, and it is now found very difficult to again restore them, although the judicious settlements made subsequently have tended much to repair the mischief previously occasioned.

Statistical Tables for the 77 Rastee Villages belonging to the Honorable Company.

50. The following statistical tables, formed from the various voluminous documents of the Survey, afford a complete view of the size, the tillage, the resources, the population, and the Revenue of the Honorable Company's 77 Rastee villages of this Purgunna:—

TABLE 1.

Superficial Contents.

	Miles. dcls.
Square miles	206·87
	Acres r. p.
Statute acres	132397 3 37
	Beegas w. ww.
Standard beegas	225283 9 2

NOTE.—These superficial contents are calculated independent of the land which remains in dispute with the villages of other Purgunnas, and which is separately shown below.

	Beegas	w.	ww.	Acres	r.	p.
In dispute with the Gaekwar Purgunnas	625	14	6	367	2	36
„ „ Nepar Tuppa	5	19	0	3	1	39
„ „ Cambay Purgunna	611	19	6	359	2	23
„ „ Pitlad Mehewassee villages	15	15	19	9	1	5

TABLE 2.

Cultivated, Waste, and Unproductive Land.

	Beegas	w.	ww.	Acres	r.	p.
Cultivation	172942	8	4	101637	1	25
Purtur, or formerly cultivated	10643	17	1	6255	1	14
Arable waste not before cultivated	13402	8	7	7876	2	4
Total arable	196988	13	12	115769	1	5
Unproductive waste	28294	15	10	16628	2	31
Total area	225283	9	2	132397	3	37

[NOTE.—According to this table, the proportion of the area unproductive is about 12 per cent., and the proportion of the arable land under cultivation about 87 per cent. In the Nureead Purgunna the proportions are 15 per cent. unproductive, and 88 per cent. in cultivation; in the Muhoonda Purgunna 15 per cent. unproductive, and 77 per cent. in cultivation.]

TABLE 3.

Cultivated and Purtur Land under Wet and Dry Tillage.

	Cultivated.						Purtur.					
	Beegas	w.	ww.	Acres	r.	p.	Beegas	w.	ww.	Acres	r.	p.
Wet	19386	10	4	11393	1	17	282	5	17	165	3	24
Dry	153555	18	0	90244	0	8	10361	11	4	6089	1	30
Total	172942	8	4	101637	1	25	10643	17	1	6255	1	14

[NOTE.—The proportion of the cultivated land artificially irrigated in this Purgunna is about 11 per cent., in the Nureead Purgunna it is 7 per cent., and in the Muhoonda 7½ per cent.]

TABLE 4.

The Wells used for the Irrigation of Land.

Government Wells.			Alienated Wells.			Total Wells.		
In use.	Ruined.	Total.	In use.	Ruined.	Total.	In use.	Ruined.	Total.
693¾	157	850¾	338¼	64	402¼	1032	221	1253

[NOTE.—It is estimated that all the ruined wells might be repaired and rendered useful at the cost of about 65,319 rupees.]

TABLE 5.

Subjects of Cultivation.

	Beegas	w.	ww.	Acres	r.	p.
Bajeree and jowar with pulse	107504	1	14	63179	2	19
Kodra and poor grains	42347	15	12	24887	2	13
Rice	9271	19	5	5449	0	13
Barley and wheat as a fallow crop ..	410	19	9	241	2	4
Vegetables	322	2	9	189	1	9
Kusoombee	104	5	0	61	1	2
Sugar-cane	122	1	4	71	2	37
Tobacco	6477	14	17	3806	3	30
Cotton	8	1	6	4	2	38
Indigo plant	2742	16	6	1611	3	30
Opium	36	3	4	21	1	0
Gram, oil plant, &c.	425	12	3	250	0	20
Ginger and turmeric	44	10	6	26	0	25
Fallow land	3124	5	9	1836	0	19
Total	172942	8	4	101637	1	25
After crops upon the above lands ..	5911	4	13	3473	3	39

TABLE 6.

The Alienated Lands according to the Tullatees' Numoona Accounts.

	Nukra or Free.		Paying Sulamees or Suwadeeas.		Total.	
	Beegas	w.	Beegas	w.	Beegas	w.
Guraneea	4664	13¾	12796	11¼	17461	5
Vechaneea	4746	12¼	28349	10¾	33096	3
Hureea and runwuteea	907	15	448	10	1356	5
Chakreea	5207	16	4204	17	9412	13
Pusaeeta	12808	6¼	2726	19¾	15535	6
Wuzeefa	57	0	151	0	208	0
Wanta	2157	5	5659	9	7816	14
Total	30549	8¼	54336	17¾	84886	6
Total Government land, by estimate					81186	1¾
„ alienated „ „					84886	6
Total arable					166072	7¾
Unproductive land, by estimate					26486	8
Total area					192558	15¾

[NOTE.—These alienated lands are for 76 villages only. The village of Veersud is held by its Patels, paying a fixed sum annually; and although it is not considered an alienated village, yet it has no Tullatee, and consequently there is no record of its lands.]

TABLE 7.

The Net Land Revenue for 6 successive Years.

Sumwut	1875, or	1819	A. D.	.....	434573½ Rupees.
„	1876 „	1820	„	.....	432952½ „
„	1877 „	1821	„	.....	428507¾ „
„	1878 „	1822	„	.....	421328¾ „
„	1879 „	1823	„	.....	396602½ „
„	1880 „	1824	„	.....	385297¾ „

[NOTE.—The average net Revenue may from the above be considered as 4,16,544 rupees; the village and other charges about 31,685 rupees, making up an average gross Revenue of 4,48,229 rupees.]

TABLE 8.

Average of the Net Land Revenue per Beega and Acre, supposing the Assessment to bear equally throughout upon all the Lands, Government as well as Alienated. The Rupee is taken at 2s. 3d.

	On the Total Cultivated Land.			On the Total Arable Land.			On the Total Area.		
	Rs.	q.	r.	Rs.	q.	r.	Rs.	q.	r.
Per beega	2	1	81	2	0	45	1	3	39
Per acre	4	0	69	3	2	39	3	0	58
	£	s.	d.	£	s.	d.	£	s.	d.
Per acre	0	9	4	0	8	0½	0	7	0¼

TABLE 9.

The Population.

	Males.	Females.	Total.
Koonbees	14872	11141	26013
Rajpoots	1255	1062	2317
Kolees	8612	7024	15636
Brahmuns	2673	2197	4870
Bhats and Tragalas	639	468	1107
Buneeas..	1685	1229	2914
Bhaosar and Cheepa	158	147	305
Kacheea and Kureea	408	310	718
Wuswaeeya	2941	2424	5365
Dhers, &c. low castes	3041	2480	5521
Other castes	1464	928	2392
Total Hindoos ..	37748	29410	67158
Moosulmans	2147	1776	3923
Total	39895	31186	71081
Slaves	.. ..	.. ..	993
Total population of the Purgunna ..			72074

TABLE 10.

The Stock and General Resources of the Purgunna.

Square Miles.	No. of Villages.	Houses.	Souls.	Horned Cattle.	Horses and Camels.	Sheep & Goats.	Ploughs.	Carts.	Net Revenue—the Mean of 6 Years.
dcls. 206·87	77	18365	72074	38739	179	6992	6162½	3422	Rs. 416544

Average of the above per Square Mile and per Acre.

	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Net Revenue—the Mean of 6 Years.
						Rs. q. r.
Per mile...	89	348	187	30	16½	2013 2,21
Per acre....	1/8	1/2	1/3	1/17	1/17	3 0 58

[NOTE.—The average number of inhabitants to each house is nearly 4; each plough cultivates upon an average 16 acres of land, and pays an average Revenue of 67½ rupees. In the Nureead Purgunna each plough cultivates 14 acres of land, and pays an average net Revenue of 49 rupees. In the Muhoonda Purgunna each plough cultivates 13 acres, and and pays 42 rupees.]

J. CRUIKSHANK,

Superintending Survey, Guzerat.

Office of Revenue and Topographical Survey, Broach, 10th October 1827.

THE NEPAR TUPPA.

Size and Situation.

THE Nepar Tuppa formed originally a part of the Pitlad Purgunna; but at the period when Guzerat was divided between the Peshwa and Gaekwar, it was in the possession of the Nuwab of Cambay, and by him transferred to the Peshwa, in lieu of the dues demanded by the head of the Mahratta empire as "Chout" or tribute. It consists of 18 villages, which are much scattered and detached from each other, but, for the most part, within a short range of the town of Nepar: some of them, however, are found so far South as the bank of the Muhee, and there are two in the neighbourhood of Matur, which lies to the North-west, at the distance of 25 miles.

Mehewassee Villages.

Dewan.

2. Nepar is an inconsiderable place, containing 696 houses, with a population of 2,596 souls; and its appearance is generally rather shabby. It has a small fort, now in a ruinous condition, but still affording tolerable accommodation. The villages dependent upon it vary much in their size and condition, but may for the most part be classed as of a respectable order. Five of them are Mehewassee, and held by Kolee chieftains. These lie upon the banks of the Muhee: the three principal, Dewan, Gajna, and Ometa, were formerly notorious for their turbulence and power, and would soon become so again under an inefficient or negligent Government. Dewan was, indeed, a sea port, at one time, of some consequence, and its inhabitants were pirates by sea as well as robbers by land. Its trade, also, was by no means contemptible, until the superior influence of the Cambay Nuwab, and the increasing shoals of the river, completely destroyed it. Even yet vessels of some size might approach it at the spring tide; but the navigation of the river must always be attended with more danger than can be counterbalanced by any advantages held out by a port at so short a distance from the comparatively safe bunder of Cambay.

Kolees of the Mehewass.

3. The Kolees of this Mehewassee tract along the bank of the Muhee are now in perfect and entire submission to their rulers. Their occupation is at present chiefly agricultural; but there is no doubt that they are only tied down to this by the strong hand of power, and that a very large proportion at least would speedily relinquish it if they perceived a favorable opportunity to renew their former lawless courses with impunity. They are still in the habit of plundering houses, and robbing upon the high roads, and occasionally extend their depredations to the Southward of the Muhee; but their robberies are seldom attended with violence, and "Dhars" or gang robberies are very uncommon. The Police appear to be exceedingly well regulated, and the people of the Rastee villages express themselves, in no ordinary terms, as altogether satisfied with their condition in this respect, and grateful for the advantages which they consequently enjoy.

Face of the Country about Nepar.

4. The country around Nepar is enclosed, and well wooded with mango, raen, and other trees of a small class. The surface is elevated and dry, and undulates slightly, but not to such an extent as to occasion much difference in fertility between the higher and the lower lands. The favourite cultivation is that of the mixed dry crops, which ripen in succession, but require only one sowing throughout the season. This description of produce has, perhaps, its advantages over every other in this tract, where the water is at great depth from the surface, and can be brought into use for the culture of wet crops, only at considerable expense. A return, more or less abundant, is almost certain from one or other of the grains sown, and a

constant supply of green forage is at the same time afforded for the cattle, which are the husbandman's most valuable property.

Introduction of Indigo would be beneficial.

5. The introduction of indigo cultivation, however, would certainly be a valuable improvement in the agriculture of this part. The poor lands of Nepar itself, in common with the range of villages included in the Bhetasee and Aras Tuppas of the Pitlad Purgunna, are peculiarly well adapted for it. The depth of the water from the surface precludes the possibility of growing sugar-cane or other valuable wet produce, while the boundary of each separate village is so extensive as to preevnt the proper application of the manure, which alone can render these soils equal to tobacco, or to any productive return of even the ordinary kinds of dry grains. But indigo requires no manure; and but little watching or attention is necessary, as the plant is not liable to be eaten by cattle trespassing, or, as in itself it possesses no value, to be stolen while growing. At present the culture of the indigo is almost confined to the villages bordering on the Cambay Purgunna, where a ready sale is found for it to the merchants of that place, who use a part in dyeing piece goods, and export the rest. Under the present security and general intercourse of the country, the vicinity or distance of the market can be of little consequence in an article so easy of transport; and the only real obstacle, setting aside some slight prejudice on the part of the Natives, to the more extended culture of indigo, is the want of vats for the extraction of the dye, as explained in the foregoing Report on the Pitlad Purgunna.

Floods of Water in the Cherotur.

6. The lands of some of the villages of the Nepar Tuppa are among those which suffer from the inundations which take place during the monsoon; and as this is a subject which concerns the whole Cherotur generally, a few observations regarding it may not be useless.

Direction of the principal Floods.

7. The strip of land along the West bank of the Muhee below Tausra, for the space of 7 or 10 miles inland, is considerably higher than the ordinary level of the country; and in the absence of any channel to carry it off, the water draining inwards from this high tract, during heavy monsoons, inundates very injuriously many of the finest villages. The principal flood, called the "Bholan," (or, perhaps, the term is more applicable to the land injured by it,) appears to commence in the Southernmost villages of the Tausra Purgunna, flowing from Kaulsar, past the town of Oomret, in a Westerly direction, through the villages of Leengra, Punsora, Wunsol, Chulalee, Soorasamul, and then South to Chuklasee, Boreeavee, Kunjeree, Bakrol and Kurumsud, where it finally rests; thereby causing the greatest destruction to the lands of the latter villages, as the water settles and has no outlet. Two other floods commence from Sundesur, South of Kurumsud, and Anund, East of it, which take a parallel direction towards the Muhee, but do not join each other. The flood from Sundesur drains down from the surrounding villages, and then flows off through Sheeol, Phangree, &c. to Durmuj, and thence to Saeema, where it spreads over the low country about Cambay. The flood from Anund sets through Jeetoreea, Napa, &c. to Bochasun and Roodel, where it is joined by another small flood from Borsud and Dubasee, and passes on to Kurumsul, where it flows into the Muhee river.

Remedies proposed.

8. Remedies for this great evil have been at various periods attempted, and two methods have been proposed; the one, to cut a "Kans" or canal, with branches and drains at particular parts; and the other to deepen and enlarge the tanks. But such a kans, to be permanent, must be at least 10 feet wide, thus occupying a great deal of valuable land, for which, in those villages which do not suffer from the inundation, there would be

no advantage to compensate. Deepening the tanks, again, could only be of effectual use in ordinary seasons, when the evil is least felt; and as either of these measures would involve very heavy expense, and as the injury is only of magnitude in years of unusually heavy rain, it might, perhaps, be best to confine attention to the affording timely assistance whenever the flood takes place, by digging temporary channels from village to village, and taking care that particular villages do not interrupt or divert its progress, to the detriment of others around them. Independent of this question, the village tanks, and also the wells, are very generally in need of repair, and constant complaints are heard of the very bad state into which they have been permitted to fall, now that the diminished influence and responsibility of the Patels renders this less an object of their particular attention.

Division of the Tuppa into Rastee and Mehewassee Villages.

9. The Nepar Tuppa, in its Revenue management, is divided into two parts, the Rastee and the Mehewassee: the former includes 12½ villages, and the latter 5½ villages: the divided village is the kusba, which contains two separate parts, the Government, or tulput and wanta, held by independent Rajpoot proprietors, which are respectively classed among the Rastee and Mehewassee, although a strict discrimination of tenures would not permit such a classification.

Size and Value of the Rastee Villages.

10. The Rastee villages contain altogether 18,529 acres of land, but 16,647 acres of this only are arable. The land in actual cultivation amounts to 14,999 acres; leaving 1,648 acres only of available land in a waste state. The gross Revenue derived by Government annually, upon an average of 6 years, is 54,164 rupees, which shows an average rate of 3¼ rupees per acre of arable land, supposing the whole of the land to be equally subject to assessment on account of Government. A comparison of the alienated with the Government land shows the quantity of the former, by the Tullatees' accounts, to be 9,338 arable acres, and of the latter 6,114 acres. The payments of the alienated lands, under the head of sulamees and suwadeeas, for a single year, amount to 10,515 rupees, being an average of Rs. 1-0-50 per acre upon the whole. The actual and direct payments made on account of the Government lands for a single year are 42,686 rupees, being an average of Rs. 6-3-94 per acre. The veeras are considered as bearing equally upon the whole in common, and do not, therefore, come into this calculation.

Collection of the Revenue.

11. The collection of the Revenue is made in 5 of the villages by a simple beegotee; 1 village only is khatabundee, and 7 are nurwa. The meaning and operation of these several systems have been already fully explained. The nurwa in some of the beegotee villages appears to have been broken up but recently, and measures for its restoration, similar to those now extensively carrying on in the Pitlad villages, would undoubtedly be very beneficial if practicable.

The Cultivators derive emolument from the sale of Ghee, and letting out their Bullocks on hire.

12. The population of the Rastee villages may be called exclusively agricultural, as the exceptions are too trifling to deserve notice. There is a large proportion of Pateedars and Koonbees; and in every respect these villages assimilate exactly to those of the Pitlad and Nureead Purgunnas, and the Cherotur generally. No mention, however, has yet been made of a source of emolument to these people, independent of their fields, by no means trifling. Every substantial cultivator possesses a number of milch cows and buffaloes, which, over and above the milk consumed by his family, afford him a large supply of ghee, which he sells. The quantity of ghee thus accumulated in large villages becomes very great, and a good deal is in addition brought down from the Northward; it is exported entirely by land

carriage to the Southern parts of the province, and in particular to the city of Surat. The carts used for its conveyance are those of the cultivators themselves, who either carry down their own ghee, or let out their bullocks which have no employment after the monsoon to others for the same purpose. The carts make 4 or 5 trips during the season, bringing back the kupaseea or cotton seed, with which the cattle are fed, and consequently made to produce more and richer milk. The carts also travel to the Hullol and Kullol Purgunnas, belonging to Sindia, for the purchase of gol or raw sugar, which is disposed of again in the neighbourhood of their own villages.

A large stock of Cattle is not disadvantageous to Cultivation.

13. The number of his cattle is the test of a cultivator's condition, as any increase in his finances is always laid out in increasing his stock, and any difficulty or extreme pressure must be met by its sale. The evil of keeping large tracts of land waste for pasturage, as observed in the poorer tracts of country, does not exist here where cultivation has reached its almost utmost limit. The straw of the leguminous grains constitutes their principal forage, and, therefore, a large herd of cattle is an inducement, not a check to cultivation. In seasons of drought and scarcity the cattle are fed upon the leaves of the trees which are so abundant in the fields and hedges: they will even eat the bitter leaves of the leem when other and better forage is not procurable.

Pateedars and Koonbees.

14. The condition of the people, and the general constitution of the villages, present no variety of manner or custom different from those of the Pitlad Purgunna generally. The Pateedars are numerous, and those villages are generally found the most flourishing which have the greatest number of Pateedars. The distinction between the Pateedar and Koonbee is greater than may at first sight be supposed. The Pateedar will not give his daughter in marriage to an ordinary Koonbee, and will only receive a daughter of that class in consideration of a handsome dowry; indeed, he loses character by the connection, and it is therefore avoided by all who pride themselves in pure descent. The Pateedars are very tenacious of their rights, and argue the propriety of the Koonbees being kept in subjection to them, as one link in the chain of society lower than themselves. They do not admit that they can ever become incorporated with them, excepting in the case of new villages, where Koonbees and Mutadars, answerable to Government for the Revenues, may in time attain the footing of Pateedars. The origin of this distinction must be placed at some very remote era. The Pateedars appear to be the descendents of those who first agreed to stand responsible, perhaps, under some peculiar Revenue system, for their Revenue to Government, and afterwards divided that responsibility between them, while the Koonbees must be considered as after comers, who were admitted merely on the footing of cultivators, subservient to the others. The Pateedar females, after attaining puberty, are not allowed to appear abroad, and slaves are kept, or Koonbees and Kolees hired, for drawing water, and performing the menial household duties: but these observances are only particularly attended to where circumstances are easy, and some little property possessed; in the poorer villages and among the poorer order of the Pateedars they are scarcely attended to. The Pateedar's rights are strictly hereditary, and he can leave his lands for any period, reclaiming them again whenever he returns, and continuing to hold them so long as he continues to pay or furnish security for his portion of the Revenue.

Swarms of Hog are a great Nuisance.

15. The swarm of hogs with which most of the villages in this quarter are infested is a singular but very great nuisance. In large villages there are often several hundreds of them, and they are so prolific and so

hardy that it is impossible to check their increase; for the Hindoos of caste will not on any account destroy them, but they contrive to afford some partial remedy for the evil by catching and conveying them away in carts to the opposite side of the Muhee, or to jungly tracts, and there letting them loose. These loathsome animals are of no use whatever, but, on the contrary, very destructive: they burrow about the houses, and in every vacant spot, and, instead of being scavengers, as some have supposed, render the streets excessively filthy; and while the crops are on the ground they resort to the fields and destroy the produce.

Current Weights and Coins.

16. Upon a trial to obtain the exact weight of the seer in use at Nepar and Borsud, it was found to be equal to 41½ Baroda or Kaira rupees, and 41 Broach. The rupees in circulation are the Asa Shahee of Kaira, the Sheea Shahee, and the Baba Shahee of Baroda. The pice used are the Baroda, and the number in exchange for a rupee fluctuates very much, rising to 50 and falling to 75, according to the price of copper, and the demand for them. In May 1827, the rupee was worth but 50 pice, and this extraordinary rise in the value of the pice was attributed as much to the numerous marriages which were then taking place, causing constant expenditure and demand for change, as to the high price of copper, then about 28 rupees per maund of the common block kind.

Statistical and Agricultural Tables.

17. The total area of the entire Nepar Tuppa, consisting of 18 villages, is found by the Survey to be as follows:—

	Miles. dcls.
Square miles	59·39
	Acres r. p.
Statute acres	38014 1 30
	Beegas w. ww.
Standard beegas	64683 18 19

In addition to this area there is also a quantity of land in dispute with foreign Purgunnas, which is excluded here, but may be easily added hereafter, in such proportions as the settlement of these disputes may assign to the Tuppa. The amount of land thus involved is as below:—

	Beegas	w.	ww.	Acres	r.	p.
Disputed with Company's Pitlad villages ..	5	19	0	3	1	39
„ „ Gaekwar villages	559	5	19	328	2	31
Total.....	565	4	19	332	0	30

18. The following tables are framed for the Rastee villages, in number 12½ alone, and tally exactly with those given for the Pitlad Purgunna:—

TABLE 1.

Superficial Contents of the Rastee Villages.

	Miles. dcls.
Square miles	28·95
	Acres r. p.
Statute acres	18529 3 10
	Beegas w. ww.
Standard beegas	31529 12 15

Land in dispute, and therefore not included in the above area:—

	Beegas	w.	ww.	Acres	r.	p.
Disputed with the Mehewassee villages of the Tuppa	210	0	10	123	1	29
„ „ Gaekwar villages	83	12	12	49	0	23
Total	293	13	2	172	2	12

TABLE 2.

Cultivated, Waste, and Unproductive Land.

	Beegas	w.	ww.	Acres	r.	p.
Cultivation	25522	1	4	14999	0	30
Purtur, or formerly cultivated...	1137	5	16	668	1	20
Arable waste not before cultivated	1667	4	13	979	3	11
Total arable....	28326	11	13	16647	1	22
Unproductive waste	3203	1	2	1882	1	27
Total area... ..	31529	12	15	18529	3	10

TABLE 3.

Cultivated and Purtur Land under Wet and Dry Tillage.

	Cultivated.						Purtur.					
	Beegas	w.	ww.	Acres	r.	p.	Beegas	w.	ww.	Acres	r.	p.
Wet	2762	4	0	1623	1	13	14	11	1	8	2	8
Dry	22759	17	4	13375	3	17	1122	14	15	659	3	12
Total	25522	1	4	14999	0	30	1137	5	16	668	1	20

TABLE 4.

The Wells used for the Irrigation of Land.

Government Wells.			Alienated Wells.			Total Wells.		
In use.	Ruined.	Total.	In use.	Ruined.	Total.	In use.	Ruined.	Total.
77½	21	98½	47½	23	70½	125	44	169

TABLE 5.

Subjects of Cultivation.

	Beegas	w.	ww.	Acres	r.	p.
Bajeree and jowar with pulse	15481	9	6	9098	1	20
Kodra and poor grains	7184	16	9	4222	1	37
Rice	1551	13	2	911	3	24
Barley and wheat as a fallow crop ..	30	0	16	17	2	24
Vegetables	15	18	6	9	1	16
Kusoombee	56	1	13	32	3	33
Sugar-cane	2	3	18	1	1	6
Tobacco	796	9	11	468	0	13
Cotton	0	19	15	0	2	12
Indigo plant	60	3	6	40	2	23
Opium	6	15	8	3	3	36
Gram, oil plant, &c.	20	7	8	11	3	35
Ginger and turmeric	7	8	16	4	1	19
Fallow land	298	13	10	175	2	5
Total	25522	1	4	14999	0	30
After crops upon the above lands ..	1618	11	4	951	0	35

TABLE 6.

The Alienated Lands according to the Tullatees' Numoona Accounts.

	Nukra or Free.		Paying Sulamees or Suwadeeas.		Total.	
	Beegas	w.	Beegas	w.	Beegas	w.
Guraneea	547	$10\frac{3}{4}$	3622	$19\frac{1}{4}$	4170	10
Vechaneea	1376	$4\frac{1}{2}$	3186	$0\frac{1}{4}$	4562	$4\frac{3}{4}$
Hureea and runwuteea	1292	$9\frac{1}{2}$	144	10	1436	$19\frac{1}{2}$
Chakreea	149	0	55	0	204	0
Pusaeeta	561	5	257	0	818	5
Wuzeefa	....		....		....	
Wanta	983	10	3714	$13\frac{1}{2}$	4698	$3\frac{1}{2}$
Total	4909	$19\frac{3}{4}$	10980	3	15890	$2\frac{3}{4}$
Total Government land, by estimate					10404	0
„ alienated „ „					15890	$2\frac{3}{4}$
Total arable					26294	$2\frac{3}{4}$
Unproductive land, by estimate					3667	$12\frac{1}{2}$
Total area					29961	$15\frac{1}{4}$

TABLE 7.

The Net Land Revenue for 6 successive Years.

Sumwut	1877, or	1821	A. D.	.....	$53283\frac{1}{2}$ Rupees.
„	1878 „	1822	„	.....	$52743\frac{3}{4}$ „
„	1879 „	1823	„	.....	$51262\frac{1}{4}$ „
„	1880 „	1824	„	.....	$49344\frac{1}{2}$ „
„	1881 „	1825	„	.....	$49378\frac{1}{4}$ „
„	1882 „	1826	„	.....	$48754\frac{3}{4}$ „

TABLE 8.

Average of the Net Land Revenue per Beega and Acre, supposing the Assessment to bear equally throughout upon all the Lands, Government as well as Alienated. The Rupee is taken at 2s. 3d.

	On the Total Cultivated Land.			On the Total Arable Land.			On the Total Area.		
	Rs.	q.	r.	Rs.	q.	r.	Rs.	q.	r.
Per beega	2	0	5	1	3	17	1	2	44
Per acre	3	1	70	3	0	20	2	2	96
	£	s.	d.	£	s.	d.	£	s.	d.
Per acre	0	7	$8\frac{1}{2}$	0	6	$10\frac{1}{4}$	0	6	$1\frac{1}{2}$

TABLE 9.

The Population.

	Males.	Females.	Total.
Koonbees	2792	2070	4862
Rajpoots	282	256	538
Kolees	1485	1251	2736
Brahmuns	411	378	789
Bhats and Tragalas	38	27	65
Buneeas	237	184	421
Kacheea and Kureea	107	78	185

Wuswaceya	490	406	896
Dhers, &c. low castes	611	513	1124
Other castes	202	81	283
Total Hindoos ..	6655	5244	11899
Moosulmans	241	177	418
Total	6896	5421	12317
Slaves			126
Total population of the Purgunna ..			12443

TABLE 10.

The Stock and General Resources of the Tuppa.

Square Miles.	No. of Villages.	Houses.	Souls.	Horned Cattle.	Horses and Camels.	Sheep & Goats.	Ploughs.	Carts.	Net Revenue—the Mean of 6 Years.
dcls. 28·95	13	3144	12443	6285	16	845	1059½	565	Rs. 50794 q. 2 r. 5

Average of the above per Square Mile and per Acre.

	Houses.	Souls.	Horned Cattle.	Ploughs.	Net Revenue—the Mean of 6 Years.
					Rs. q. r.
Per mile...	108	429	217	36½	1754 2 30
Per acre.....	$\frac{1}{6}$	$\frac{2}{3}$	$\frac{1}{3}$	$\frac{1}{18}$	2 2 96

Two Tables given in an Appendix, showing the Statistics of several Purgunnas in comparison with each other.

19. Two tables, the one general, and the other proportional, have been framed as an Appendix to this report, with a view of showing the size, revenue, and general statistics of all the several Purgunnas of the Province of Guzerat, which have as yet been surveyed, in comparison with each other. From this it will be seen how very superior the Purgunnas of the Kaira Zilla which compose the tract of country usually known by the name of the Cherotur are. They are more thickly populated than the Purgunnas of any other Zilla; they pay a Revenue about equal to the best of those of the Surat, and inferior only to the best of the Broach; and they are in every respect infinitely superior to any part of the Ahmedabad Collectorate.

Maps of the Kaira Zilla forwarded in accompaniment.*

20. The intermixed and detached nature of the villages composing the Purgunnas of the Kaira Collectorate renders it impracticable to form maps for each separate Purgunna on a separate sheet, as has been done in the Ahmedabad and Surat Collectorates. It is therefore intended to exhibit a topographical plan of the whole country, in a series of sheets, on a scale $1\frac{1}{4}$ inch to 1 mile, reduced from the original plans of villages on the large scale of 5 inches to 1 mile. Three sheets of this series* are forwarded in accompaniment with this report; they include the Purgunnas of Pitlad, Nureead, Muhoonda, Mehemoodabad, Duskroee, and Alena, complete; the Tuppas of Oomret, Bhaluj, and Nepar complete; and a large portion of the Dholka and Matur villages, together with the town and cantonment of Kaira. They embrace, therefore, the whole of this Collectorate, with the exception of the Kupurwunj and Tasra Purgunnas, the Puryej Tuppa, and the remaining portions of the Dholka and Matur Purgunnas.

J. CRUIKSHANK,
Superintending Surveys, Guzerat.

Office of Revenue and Topographical Survey, Broach, 10th October 1827.

* Not on record.

APPENDIX

Proportional Statement, showing the Size, the Proportions, Cultivated, Arable and and Average Net Revenue per Acre, of all the several Purgunnas as yet com

Purgunnas, Tuppas, &c.	1 Number of Villages.	2 Total Square Miles.	3 Proportion Unproductive.	4 Proportion of the Productive Land Cultivated.	5 Proportion of the Productive Land Alienated.	6 Net Revenue to the British Government.
BROACH ZILLA.			Per cent.	Per cent.	Per cent.	Rupees.
		dcls.	dcls.	dcls.	dcls.	
Broach Purgunna (1) ..	162	429·77	18·06	93·34	21·49	1153817
Unklesur „	50	134·90	31·87	73·89	26·45	200546
Hansot „	51	142·25	48·01	90·37	34·83	173745
Jumboosur „	82	337·15	38·65	85·90	32·66	334386
Amod „	42	220·14	49·48	76·75	40·29	80354
Dehej „	10	55·46	54·98	82·56	35·95	14550
KAIRA ZILLA.						
Nureead Purgunna (2) ..	36	162·46	15·28	89.64	54·39	275859
Oomret Tuppa	5	11·46	15·09	84·49.	54.42	25574
Bhaluj „	11	16·43	12·53	77·91	22·10	37662
Muhoonda Purgunna (2) ..	76	154·65	14·58	79·59	58·56	218240
Duskroee „ (2) ..	33	94·59	17·57	62·43	43·65	84861
Dholka „ (3) ..	16	63·38	15·02	67·35	66·84	64606
Kunej, Sadra, Mulatuj (separate Villages).. ..	3	11·77	22·60	68·54	64.73	10107
Mehemoodabad Purgunna .	11	33·56	18·26	67·32	50·11	33337
Pitlad „ (2).	77	206·87	12·55	87·79	51·11	416544
Nepar Tuppa	12½	28·95	10·15	90·09	60·43	50795
AHMEDABAD ZILLA.						
Duskroee Purgunna (4) ..	146	342·54	15·26	58·24	33·84	295666
Dholka Khalsa Villages (5).	66	243·27	10·84	59·47	44·50	202144
Dholka Talooka Villages (5).	107	652·75	....	....	....	225989
Puranteej Purgunna (6) ..	66	155·27	15·56	56·34	20·63	36470
Hursol „ (7) ..	10	29·03	20·82	32·16	14·74	1866
Morassa „ (7) ..	35	104·81	25·59	22·98	6·83	9589
Bayur „ (7) ..	15	50·98	13·92	29·85	12·12	5549
SURAT ZILLA.						
Oolpar Purgunna (8) ..	143	322·83	44·77	75·94	24·42	483861
Parchol „ (9) ..	35	110·54	62·62	56·22	11·89	149033
Soopa „ (10) ..	44	60·18	23·06	49·54	11·86	99720
Turkesur „	8	20·82	22·64	49·59	10·64	9164

(1) Exclusive of the fort of Broach, but inclusive of its suburbs, which are distinct villages. From all the Purgunnas of the Broach Collectorate the alienated villages are excluded.

(2) Exclusive of alienated villages, Mehewassee and Enamee.

(3) Including the Talooka villages, which at the time of Survey were under direct Government management.

(4) Exclusive of the city of Ahmedabad within the walls, but inclusive of the 11 alienated villages.

(5) Exclusive of 9 alienated villages, Enamee and Kheratee.

(6) Exclusive of the Mehewassee and other alienated villages, and the same under Hursol, Morassa, and Bayur.

(7) Including the villages held jointly by the Company and the Marwaree; but in the average Revenue per mile and acre these are excluded, the Revenue derived by the Marwaree not being known sufficiently exact.

(8) Including 4 alienated villages.

(9) Exclusive of 3 villages held by the Sucheen Nuwab.

(10) Exclusive of 4 alienated villages.

No. 1.

Unproductive ; the Average Revenue, Population, Cattle, Stock, &c. per Square Mile, pleted by the Revenue and Topographical Survey, in comparison with each other.

7	8						9					
	Average per Square Mile.						Average Net Revenue per Acre.					
Percentage of Village Charges on the Gross Revenue.	Houses.	Souls.	Horned Cattle.	Ploughs.	Carts.	Revenue.	On Total Cultivated Land.			On Total Arable Land.			On Total Area.		
Per cent.						Rupees.	Rs.	q.	r.	Rs.	q.	r.	Rs.	q.	r.
dcls.															
9·80	53	228	53¼	14½	..	2684¾	5	1	92	5	0	46	4	0	77
14·01	45	191	130	20½	..	1486½	4	2	56	3	1	72	2	1	29
16·87	27	119	103	18¼	..	1221½	4	0	26	3	2	68	1	3	63
11·30	37	138	73	12½	7	991¾	2	3	76	2	2	10	1	2	19
24·97	18½	74	48	8	4	365	1	2	40	1	0	91	0	2	28
27·20	18	70	41	8	4	262¼	1	0	41	0	3	64	0	1	63
10.25	102	397¾	189½	34¼	19	1698	3	2	17	3	0	52	2	2	61
21·23	299	1154½	277	34½	41	2231½	4	3	54	4	0	42	3	1	94
5·72	67½	258½	196	26¾	19½	2292¼	5	1	15	4	0	37	3	2	32
14·75	78¾	303½	223½	33½	15¼	1411	3	1	36	2	2	32	2	0	81
14 45	61¾	216¾	175¼	27	8½	897	2	3	29	1	2	80	1	1	60
10·51	63	215½	132½	29½	8½	1019¼	3	0	16	1	3	49	1	2	37
12·96	64½	234¼	217	31	10	858½	2	2	60	1	2	92	1	1	36
14·25	62¼	257¾	107½	20¼	6¼	993¼	2	3	72	1	3	59	1	2	20
7·06	88¾	348¼	187¼	29¾	16½	2013½	4	0	69	3	2	39	3	0	58
6·22	108½	429¾	217	36½	19½	1754½	3	1	70	3	0	20	2	2	96
8·96	63	207	156	22½	7¼	863	3	0	48	1	2	36	1	1	39
9·88	87	247	138	24	8	830¾	2	2	85	1	1	82	1	1	19
....	23	56	45	9¼	3	346		....			....		0	2	16
8·11	35½	123½	117½	12½	2¼	234¾	0	3	15	0	1	73	0	1	46
43·72	23¼	70¼	82¼	9½	1¼	65¼	0	1	31	0	0	51	0	0	40
26·38	31	95	90¾	10¾	2½	82½	1	0	42	0	0	70	0	0	51
45·25	23	77¼	85¼	11¾	2¾	61¼	0	1	35	0	0	46	0	0	38
18·90	32	147	91	15	8	1498¾	5	2	50	4	1	37	2	1	36
10·10	43	180	97	15	10	1348¼	10	0	10	5	2	54	2	0	42
25·02	49	220	186	28	17¼	1657	6	3	17	3	1	46	2	2	35
28·16	32¼	149¼	167¾	23½	13¼	440	1	3	17	0	3	55	0	2	75

N. B.—The proportion of land under cultivation, in column 4, includes fallow and land left out of tillage a single year. The proportion of land alienated, shown in column 5, is calculated as follows :—In the Broach, Unklesur, and Hansot Purgunnas, on the amount settled by the Revenue Committee ; in the Ahmedabad Zilla on the measured amount according to possession at the time of Survey ; and in all other Purgunnas on the amount stated in the Tullatees' records. The net Revenue in column 6 of the Purgunnas of the Broach Zilla is taken for the single year 1817-18 A. D., as given in Lieutenant Colonel Williams' Report ; that for the Purgunnas of the Ahmedabad, Kaira, and Surat Zillas is the mean of 6 successive years, with the exception of Muhoonda, the Revenue of which is of a single year, taken from the Tullatees' accounts. The village charges, in column 7, include the chora khurch, or contingent expenses of the villages, the Muzmoodars' and Desaees' fees, Guras payments, dhurmada, or charitable donations for the support of temples and religious persons, the Tullatees' pay, and occasionally an enam or honorary present to the Patels ; but the items included under this head differ much in different Purgunnas. The per-centage is calculated on the total amount of these charges, added to the net Revenue of the preceding column, thereby making up the gross sum actually collected.

No.

General Statement, showing the quantity of Land, Cultivated, Arable, and Unproductive; the quantity the result of the Census; in each of the several Purgunnas

Purgunnas, Tuppas, &c.	Number of Villages.	Quantity of Land									Quantity		
		Actually in Cultivation.			Waste, but Arable.			Unproductive, and not capable of Cultivation.			Total Land of every description.			Alienated, or held by any other than the Government.		
BROACH ZILLA.		Acres	r.	p.	Acres	r.	p.	Acres	r.	p.	Acres	r.	p.	Acres	r.	p.
Broach Purgunna...	162	210530	1	5	15012	2	18	49517	2	25	275060	2	8	48487	2	12
Unklesur ,, ...	50	43203	2	29	15264	2	14	27352	1	39	85820	3	2	15470	0	25
Hansot ,, ...	51	42731	2	20	4594	3	24	43719	1	38	91046	0	2	16486	1	26
Jumboosur ,, ...	82	113716	3	13	18659	0	25	83402	1	18	215778	1	16	43239	1	28
Amod ,, ...	42	50216	0	13	15209	2	22	64099	3	21	140893	2	0	26362	2	17
Dehej ,, ...	10	13192	1	1	2728	0	4	19517	2	14	35497	3	19	5746	0	6
KAIRA ZILLA.																
Nureead Purgunna	36	78962	2	21	9121	1	13	15892	3	7	103976	3	2	41807	3	30
Oomret Tuppa	5	5261	2	3	965	3	28	1106	3	35	7334	1	28	2469	1	19
Bhaluj ,, ...	11	7167	3	28	2031	3	12	1318	0	6	10517	3	7	1759	0	18
Muhoonda Purgunna	76	67283	3	9	17254	2	8	14440	1	38	98978	3	18	41243	1	7
Duskroee ,, ...	33	31154	1	26	18744	0	14	10641	3	36	60540	1	38	16757	1	0
Dholka ,, ...	16	23217	3	13	11251	3	20	6095	3	0	40565	1	34	19540	1	7
Kuneej, Sadra, Mulatuj... ...	3	3998	2	13	1834	3	34	1704	2	4	7538	0	13	3094	2	38
Mehemoodabad Purgunna ...	11	11819	1	27	5736	2	6	3923	0	31	21479	0	26	7164	2	21
Pitlad ,, ...	77	101637	1	25	14131	3	18	16628	2	31	132397	3	37	49887	1	2
Nepar Tuppa	12½	14999	0	30	1648	0	31	1882	1	27	18529	3	10	9338	2	9
AHMEDABAD ZILLA.																
Duskroee Purgunna ...	135	107958	3	38	77824	2	19	33447	1	38	219231	0	15	57793	0	25
Ditto, Alienated Villages	11													17699	3	14
Dholka Khalsa Villages.. ...	66	81980	1	36	56820	0	13	16892	1	29	155692	3	30	61773	3	19
Dholka Talooka Villages ..	107	.....			.....			.....			417761	3	30	.. ...		
Puranteej Purgunna	66	27277	0	36	36633	0	28	15459	2	3	99369	2	38	17310	3	17
Hursol ,, ...	10	4731	0	23	9977	2	5	3868	3	7	18577	1	37	2167	3	26
Morassa ,, ...	35	11470	2	27	38442	0	18	17168	0	34	67081	0	3	3411	3	28
Bayur ,, ...	15	8385	2	9	19700	0	11	4542	2	13	32628	0	35	3406	0	30
SURAT ZILLA.																
Oolpar Purgunna...	143	86002	3	14	25385	1	13	90292	0	32	206611	1	20	27202	3	1
Parchol ,, ...	35	14865	3	21	11574	0	12	44310	3	13	70750	3	35	3145	3	6
Soopa ,, ...	44	15083	0	7	14548	1	2	8885	0	27	38516	2	39	3752	0	26
Turkesur ,, ...	8	5305	2	10	5003	0	34	3017	3	12	13326	2	13	1644	1	0

NOTE.—As this table tallies exactly with the foregoing, the notes are not repeated.

2.

of Arable Land, Alienated, and the entire property of Government; the Revenue, Net and Gross; and of which the Revenue Survey has been completed.

of Arable Land						Revenue.							Result of the Census taken by the Survey.					
The entire property of Government.			Total Arable Land, both Alienated and Government.			The Annual Net Revenue derived by Government.			The Village and other Charges.			The Annual Gross Revenue.				Total number of Houses.	Total number of the Inhabitants of every Class.	Number of Horned Cattle.	Number of Sheep and Goats.	Number of Ploughs in actual use.	Number of Carts.
Acres	r.	p.	Acres	r.	p.	Rs.	q.	r.	Rs.	q.	r.	Rs.	q.	r.							
177055	1	11	225542	3	23	1153817	0	70	125435	2	68	1279252	3	38		22753	97874	.....	.....	.....	....
42998	0	18	58468	1	3	200546	1	93	32680	2	37	233227	0	30		6001	25751	16976	.....	2774	....
30840	0	18	47326	2	4	173745	3	72	35274	1	0	209020	0	72		3900	16992	14674	.....	2601	....
89136	2	10	132375	3	38	334386	0	19	42613	1	33¾	376999	1	52¾		12723	46443	24812	.....	4287	2301
39063	0	18	65425	2	35	80354	0	49	26749	3	26¼	107103	3	75¼		4075	16347	10547	.....	1752	889
10234	0	39	15980	1	5	14550	0	38	5437	3	40	19987	3	78		1038	3938	2269	.....	443	219
35051	2	2	76859	1	33	275858	2	25¼	31530	2	73	307389	0	98¼		16587	64658	30822	4348	5592½	3115
2068	1	8	4537	2	27	25573	3	5¾	6864	2	8¾	32468	1	14½		3428	13231	3177	505	396½	471
6197	3	14	7956	3	33	37661	2	59	2284	2	47	39946	1	6		1110	4251	3224	422	443½	321
29176	2	2	70419	3	9	218240	1	98	37778	2	7½	256019	0	5½		12116	46968	31504	5672	5196	2396
21630	0	11	38387	1	12	84861	0	32½	14342	2	1	99203	2	33½		5849	20514	16580	1725	2572½	822
9689	3	24	29230	0	31	64605	3	33¾	7589	0	49	72194	3	82¾		4001	13661	8411	476	1870	548
1686	1	6	4781	0	5	10107	0	87	1506	0	0	11613	0	87		761	2758	2557	33	366½	119
7131	0	21	14295	3	3	33336	3	91	5541	2	30	38878	2	21		2094	8657	3612	201	687½	216
47712	2	26	97599	3	28	416543	3	34	31685	3	58¼	448229	2	92¼		18365	72074	38739	7171	6162½	3422
6114	1	20	15452	3	30	50794	2	5	3369	2	42	54164	0	47		3144	12443	6285	861	1059½	565
112984	3	33	170778	0	18	295666	0	0	29100	3	70	324766	3	70		21721	70925	53271	3068	7714	2537
....			17699	3	14																
77026	3	11	138800	2	30	202144	0	50	22185	1	21	224329	1	71		21225	60011	33567	2267	5879½	1929
....			....			225988	2	50	....			....				15196	36422	29587	1864	6085½	1907
66599	2	8	83910	1	26	36470	2	25	2959	0	83	39429	3	8		5527	19190	18261	1756	1976	360
12540	3	3	14708	2	29	1865	2	79	816	1	58	2682	0	37		675	2044	2388	280	277	40
46500	3	20	49912	3	8	9588	1	68	2530	1	46	12118	3	14		3272	9957	9502	1287	1150½	271
24679	1	29	28085	2	22	5548	3	83	2510	2	84	8059	2	67		1181	3950	4354	250	609	144
84185	1	26	111388	0	27	483861	2	50	112801	0	63¼	596662	3	13¼		10572	47525	29279	5751	4889	2718
23294	0	27	26439	3	33	149033	0	0	16745	0	68¾	165778	0	68¾		4788	19885	10698	4166	1670	1104
27867	2	30	31619	3	17	99720	0	83	33281	0	0	133001	0	83		2953	13253	11208	3549	1693½	1039
13798	2	8	15442	3	13	9163	3	3	4131	0	75	13294	3	78		676	3110	3497	797	490½	280

J. CRUIKSHANK.

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